

FLIGHT

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OFFICIAL ORGAN OF THE ROYAL AERO CLUB

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EVERY THURSDAY

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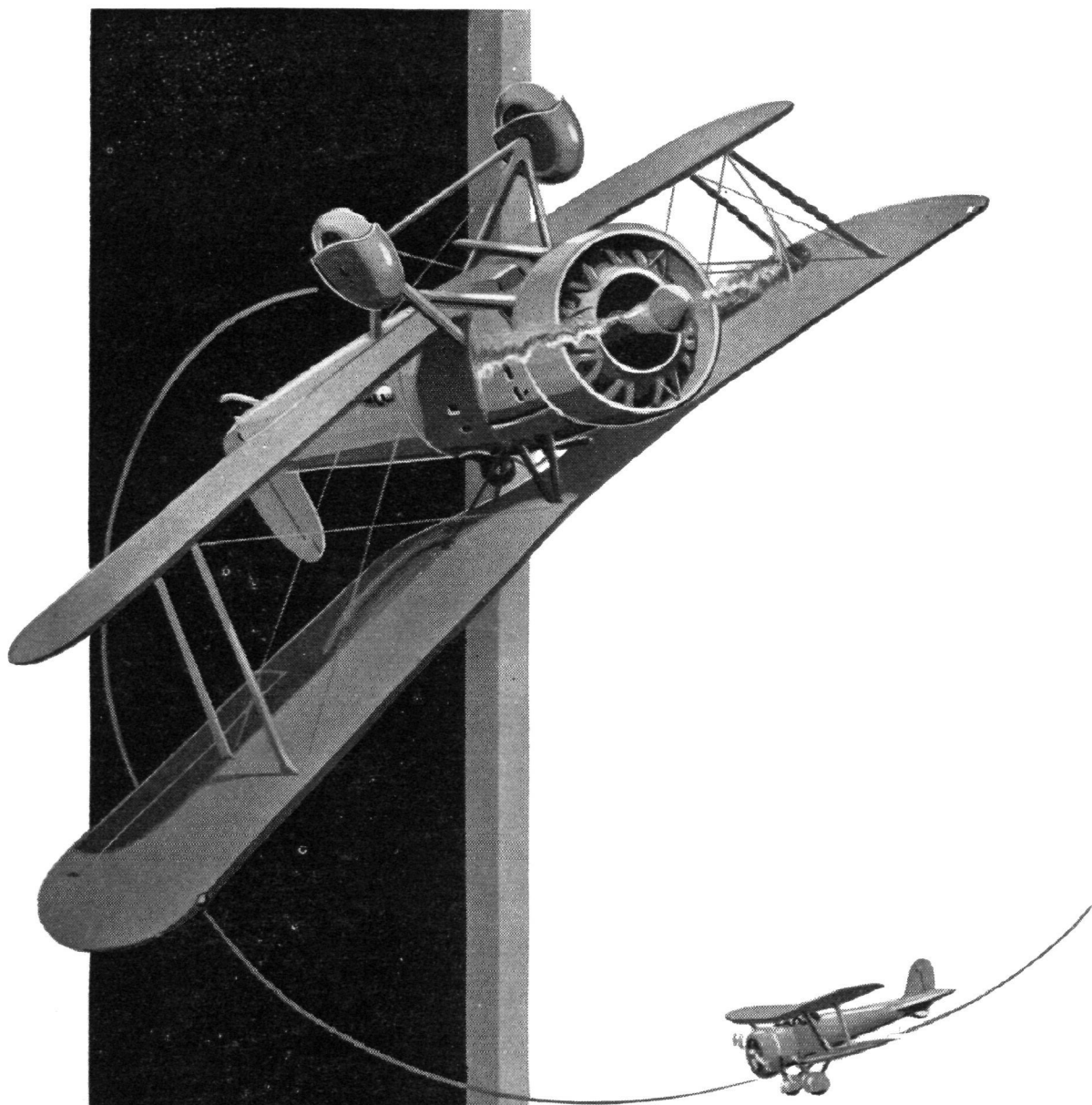
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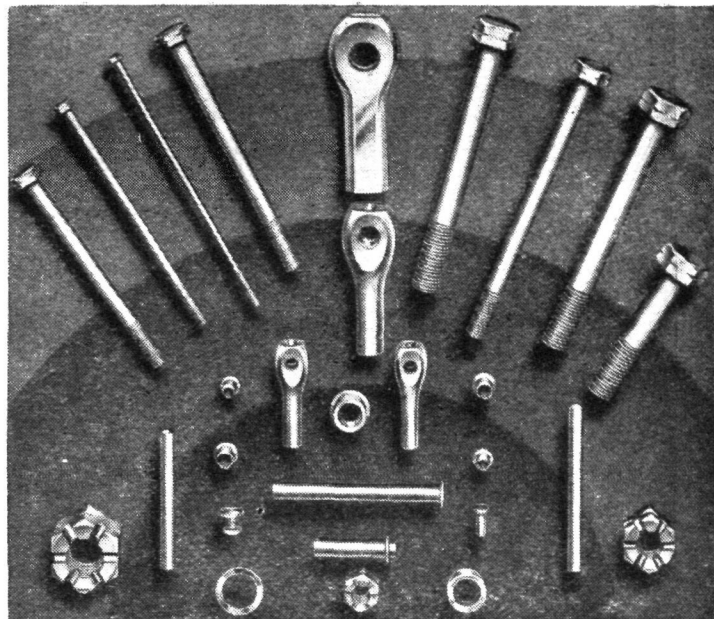
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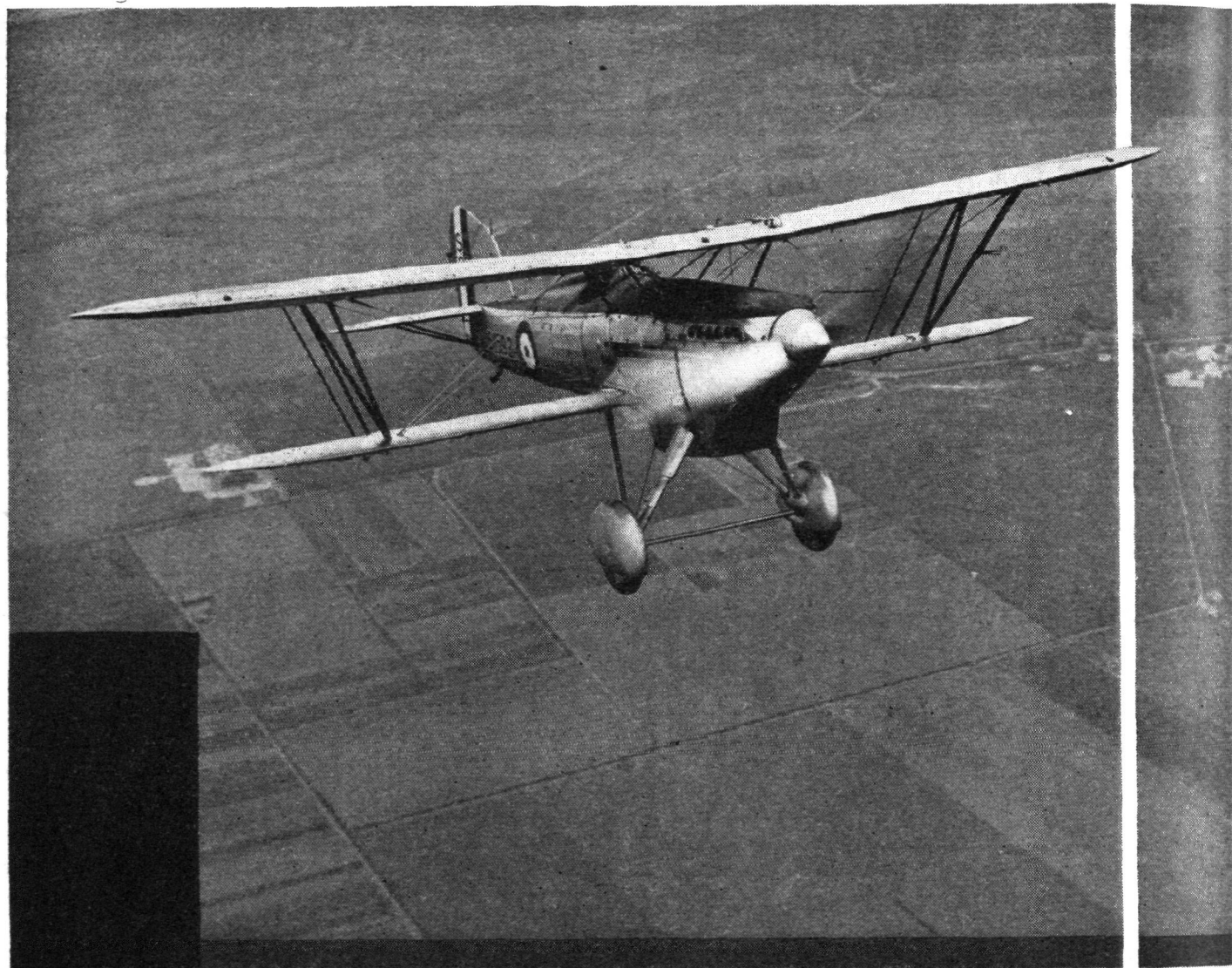
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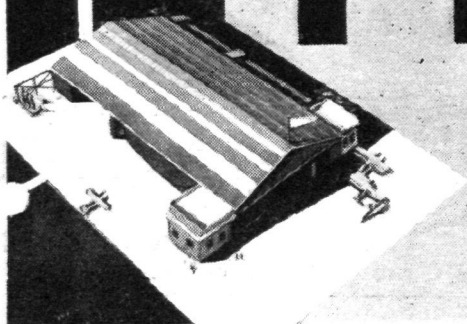
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FLIGHT

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Founder and Editor: STANLEY SPOONER

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DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list :—

1933.

Aug. 12. London-Newcastle Race.

Aug. 13-20. International Gliding Competition, Wasserkuppe, Germany.

Aug. 18-22. Swimming : R.A.F. Championships, Halton.

Aug. 19-20. 5th Annual Canadian Air Pageant, St. Hubert Airport, Montreal

Aug. 28-30. Golf : R.A.F. Autumn Meeting, Camberley Heath G.C.

Aug. 29-31. Swimming : Inter-Service Championships, Aldershot.

Aug. 31.-Sept. 9. Model Engineer Exhibition, R.I. Horticultural Hall, Westminster.

Sept. 1-4. International Air Races and Gordon Bennett Balloon Race, Chicago.

Sept. 2. Norfolk and Norwich Ae.C. Garden Party.

Sept. 9. Kent Air Pageant, Maidstone Airport.

Sept. 9. Essex Aviation Display, Maylands Aerodrome, Romford.

Sept. 16. Bristol and Wessex Ae.C. Garden Party.

Sept. 29. Stage and Screen Ae.C. Gymkhana and Theatrical Garden Party, Hatfield.

Dec. 18-24. International Rally at Cairo and Meeting of the F.A.I.

EDITORIAL COMMENT



FLIGHT desires to offer a hearty welcome to Mr. Hudson Fysh, managing director of the Queensland and Northern Territory Air Services, Ltd., who has accompanied Maj. Brackley back from Australia to discuss arrangements for future work with Imperial Airways. We have often expressed the opinion that while people in Europe and America were experimenting with air lines and learning how to run them, the men in Australia were running them to the benefit of everyone concerned. In other words, the early air lines in Europe and America were kept going for the sake of the aeroplane ; in Australia the aeroplane was kept going for the sake of the people. The whole British Empire has cause to be proud of the flying efforts and successes of Australia.

Qantas and Imperial Airways

Two names will always stand out in connection with this fine Australian effort, Maj. Norman Brearley and Mr. Hudson Fysh. Maj. Brearley has visited Great Britain many times, both during and since the war. Mr. Fysh is now paying his first visit to the home of his ancestors. The war did not happen to bring him farther west than Palestine and Gallipoli. The achievements of Qantas are sufficiently remarkable for Mr. Fysh to deserve a special welcome, but even more significance is lent to his visit by the conversations now in progress with Imperial Airways.

It may be as well for us to start by reminding our readers briefly of what Qantas has done. We described it at some length in our special Australian issue of May 17, 1928, but it will bear repetition after such a lapse of time. In 1920 four Queenslanders, Messrs. Hudson Fysh, Paul McGinnis, A. N. Templeton, and F. McMaster, met together in Longreach and decided to form a flying company. They acquired a mixed fleet of aeroplanes and proceeded to do taxi work in the Queensland "out-back," where ground transport is of the most unreliable character. One has heard true stories of days within living memory when sick folk set out

from a stock station to get to a hospital, driving in a horse buggy. Then rain swelled the rivers; they were marooned, and the patients died from want of medical attention. In such country the aeroplane came as a very great boon, and the company did pretty well in its first two years of operations.

In 1922 the company was granted a Government contract to run a service once weekly in each direction between Charleville and Cloncurry. This route gave a wonderful opportunity for the aeroplane to prove its usefulness. A railway runs up the coast northwards from Brisbane, and from two seaports, Rockhampton and Townsville, branch lines run inland to the grazing districts. Between the inland railheads there was no direct connection. The Qantas air lines provided that connection by joining five railways. The junctions of the airway with the railways were at Charleville, Blackall, Longreach, Winton, and Cloncurry. It was only natural that such an airway should soon win popularity, and it was not long before the people of the Queensland interior looked on it as their great standby in times of trouble. Later on the service was extended at one end to Brisbane and at the other to Camooweal. Queensland is a good flying country, with possible landing grounds almost everywhere. Despite this the record of Qantas for safety and regularity on their flights is proof of excellent management and organisation. The machines were well maintained, and the pilots were good and careful men who knew their job and did it. So passed 11 years in hard, progressive, and fruitful work.

Now the time has come for Australia to be joined by air to the rest of the Empire. The airway to India is to be extended on to Australia. Naturally it must touch first at some port on the northern coast, and Darwin seems to have been chosen as the most suitable one. Then it is necessary to ensure that the mails shall be distributed to the Federal and State capitals without delay, that is to say, by air. The Australian Government has decided to subsidise an airway from Singapore to Darwin and then on to the capital cities. One trunk line is to run down the eastern side of Australia, through Queensland, so as to feed Brisbane, Sydney, Melbourne, and Canberra. A branch line is to run down the other side so as to feed Perth. The Australian Government very reasonably decided that only an Australian company should be eligible to receive this subsidy. An offer from the K.L.M. to bring in the English mails, which seemed very handsome, was patriotically declined.

Various schemes were set on foot with the object of forming a strong Australian company which should tender for the contract when it should be published, but as they came to nothing we need not refer to them here. We may remark that as Imperial Airways are to carry the service from Croydon to Singapore, the best results could hardly be expected if a sudden change was to occur at that spot. Australia herself has learnt by sad experience on her railways how inconvenient is a break of gauge at a State frontier. Homogeneity is one of the secrets of success in transport operations of this nature. So representatives of Imperial Airways and of Qantas met and decided to form an Australian company with both their interests represented. Such a company will have behind it all the weight and prestige of Imperial Airways and all the great experience of Qantas in running an airway across Queensland.

Such a company will be able to use the same type of aircraft as is used by Imperial Airways to bring the mails to Singapore. This is a really great conception, and should bring about excellent results. The two parties to the contract have both proved themselves, and both deserve the confidence of the public.

The terms of the contract have not yet been published, and it must be expected that other parties may tender. But it is clear that the trunk line must run through Queensland, and that being so, it would appear the height of wastefulness not to make use of the thirteen years of experience gained by Qantas in that State. To suggest that any other party could actually operate better than Qantas would tax the ordinary man's credulity. We await the result of the tenders with confidence.

* * * *

France has won from us the world's record for a long-distance flight in a straight line, and with no thoughts of jealousy we offer our hearty congratulations to the pilots, MM. Codos and Rossi, on their magnificent flight from New York to Rayak. M. Codos is well known and very popular at Croydon aerodrome, where he was familiar as one of the best of the Air Union pilots. Adjutant Rossi has already won fame, as he, in company with M. Bossoutrot, has twice established world's records for distance flown in a closed circle. These records were made in March, 1931, and March, 1932, in a circuit round Oran. On each occasion the pilots used the Blériot Zappata 110 aeroplane named *Joseph Le Brix* in which Rossi and Codos have just set up a new long-distance record. In 1931 the engine used was a 600-h.p. direct-drive Hispano-Suiza with two-bladed propeller. Last year the engine was changed for a 500-h.p. geared Hispano with four-bladed propeller. At the moment we have no certain knowledge of what Hispano engine was used in the flight to Rayak.

It has been emphasised in the press that the *Joseph Le Brix* had done some 400 hours' flying before it started on this last great effort. Its two closed-circuit records account for a good deal of this flying, for the second one involved over 75 hours in the air. The machine was, in fact, designed especially for long-distance flying, and is credited with a range in still air of 12,000 kilometres (7,500 miles). It is a design more recent than our Fairey monoplane in which Gayford and Nicholletts flew from Croydon to Walvis Bay. It is, we consider, only fair to point this out, though it does not in any way detract from the credit due to the great French feat. Doubtless both M. Blériot and Mr. Fairey could now design machines which would fly still further than any has flown hitherto. It is reported that M. Blériot has actually got a new long-range machine ready. In view of Lord Londonderry's recent speech in the House of Lords about the high-speed record, we must suppose that the British Government will not take any steps in the matter. We are now left with one world's record, the altitude, and that was captured with a machine not specially built for record-breaking. So soon as some foreigner builds a special altitude machine, we must suppose that we shall be outclassed there too. We must console ourselves with the thought that our successes have been made without specialising, and so it is not our best which has been beaten.

SCARBOROUGH CLUB'S THIRD AIR DISPLAY

TWELVE months ago, the Scarborough Aero Club celebrated its transference to the aerodrome at Ganton, by organising a flying display. These last twelve months have been full of vicissitudes for the club, but despite this, much obvious progress has been made. The members are really keen pilots, and a very high number of hours per member is consistently recorded.

It is a great asset to a town like Scarborough to have a really live aero club, as was pointed out by the Mayor (Councillor G. K. Pindar) in the programme, where he expressed the hope that the display might not only prove an attraction to the spectators, but also a means of drawing the attention of the rapidly growing number of private owners, and others interested in civil aviation, to the excellent facilities provided by the club at Ganton Aerodrome.

It is difficult to understand why every seaside town, which, like Scarborough, is so dependent upon its visitors, does not have an aerodrome with comfortable facilities to attract air visitors. The secretary and all the club members there are always ready to go out of their way to help anyone who visits them, and their example is one to be followed.

Monday, August 7, was Bank Holiday, so they hoped to attract large numbers of the general holiday public to Ganton. Unfortunately, they only got some 2,000 or 3,000, few of whom can have been the type likely to be of ultimate value to the club. There must have been something lacking, either from the programme offered, or from the publicity given in the town, for not only Scarborough, but all the



The Western Brothers who amused the crowd not only with their caps but also with a spot of tunny fishing (shooting?), are shown on the left ready for huntin', shootin' and fishin'. (FLIGHT Photo.)

surrounding towns were packed that day with "lads and lassies" pleasure bent.

An Arrival competition was the first item; this was won by Flt. Lt. J. B. Allen, pilot to the Duchess of Bedford, who came in the "Puss Moth" in which he flies Her Grace about such a lot. Second was F/O. H. C. D. Hayter, who brought Kathleen Countess of Drogheda up in his "Puss Moth." Third was Mr. Garnett, a Yorkshire Aeroplane Club member, who flew a "Moth" from Yeadon.

Besides the Mayor and Mayoress of Scarborough, there were the Lord Mayors and Lady Mayoresses from both York and Hull, who incidentally came by air.

Lady Drogheda opened the meeting, and in doing so drew attention to the fact that Sir George Cayley's house was visible from the aerodrome. She thought that as Sir George was justifiably called the "Father of Aviation," it would be only fitting if some memorial were erected to him.

Three club aircraft arrived in formation from the Leicestershire Aero Club, and also from the Newcastle Aero Club. In both cases they brought letters from the Mayors of their respective cities, which were handed over with due ceremony to the Mayor of Scarborough.

A visitor who arrived about this time and caused a great deal of interest was Mrs. Bonney, who, as our readers



Kathleen Countess of Drogheda declaring the meeting open. The "tunny fish" meanwhile coming up for a breather behind her. (FLIGHT Photo.)

know. has recently flown from Australia in a "Moth" (Gipsy I).

A representative fly-past took place, comprising some 19 aircraft of fourteen different types. They were chosen from among the fifty odd visiting aircraft.

Mr. R. A. C. Brie, after flying the "Autogiro" round, landed in front of the main enclosure with the engine stopped.

There were two races during the afternoon. The first, designated "Round the Ridings," was over a course of about 127 miles, covering most of Yorkshire, and the second, called "Round the Houses," being three laps of a 12-mile course so arranged that the aeroplanes were in view for most of the time. They each attracted a number of entries, and our tables give a good idea of how excellent the handicapping of Messrs. Dancy and Rowarth was. The finish of the second race was one of the best we have ever seen, and certainly came nearer to raising a modicum of interest among the general public than most races do.

Mr. H. Bailey brought down one of the Blackburn "B.2" Trainers from the Reserve Training School at Brough, and put up a very pretty show. His machine was fitted for inverted flying, an asset of which he made the best possible use.

Mr. S. A. Thorn is one of our best-known pilots for doing something really spectacular, and is well worth watching. On an Avro "Cadet" he maintained his reputation. The loudspeaker arrangements were by no means adequate for the enclosures, which was a pity, as shows like Thorn's and Bailey's are greatly enhanced and their interest increased when a running commentary is given



The Mayor and Mayoress of Hull being greeted by Mr. F. P. Morgan, Chairman of the Club Committee, on their arrival in an N.F.S. Desoutter from the Hull Aero Club. (FLIGHT Photo.)

about them. The general public do not appreciate the finer points of the flying, especially manoeuvres like the "bunt," which Thorn appeared to do easily, unless they are told all about them while they are being performed.

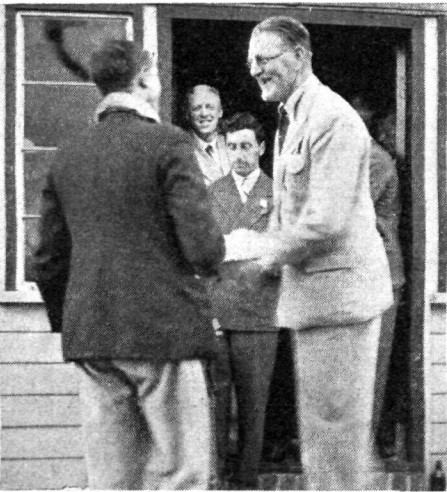
There was an orgy of parachute jumping. Mr. Fairlie (G.Q.) and Messrs. George, de Greeuw, and Marsland (all Russell-Lobes) vied with one another in attempting to land in the aerodrome circle after jumping from about 1,500 ft. The first named was the victor.

ROUND-THE-RIDINGS RACE

Pilot	Aircraft and Engine	Start		Finish		Speed	Place
		m. s.	m. s.	m. s.	m. s.		
E. A. Wynn ..	Avian (Cirrus II)	0 00	72 40	90			THIRD
Miss Tyzack ..	Moth (Gipsy I) ..	5 28	73 40	96			4th
C. H. Tutt ..	Moth (Gipsy I) ..	7 07	71 06	102			FIRST
J. R. Micklethwaite	Moth (Gipsy II)	8 04	72 24	101½			SECOND
B. S. Allen ..	Cadet (Genet Maj. 7-cyl.)	14 45	Retired	—			—
L. Lipton ..	Moth (Gipsy III)	15 58	77 10	107			5th
A. Henshaw ..	Swift (Pobjoy R)	18 55	70 35	126¾			disq.

ROUND-THE-HOUSES RACE (FINAL)

Pilot	Aircraft and Engine	H'cap All'ce	Finish		Speed	Place
			m. s.	m. s.	m.p.h.	
T. E. Richardson ..	Bluebird IV (Gipsy I)	4 57	19 50	92½		4th
H. V. Worral ..	Moth (Cirrus III)	4 45	19 52	94		5th
F. P. McGevor ..	Moth (Gipsy I) ..	3 31	19 42	101		SECOND
Mrs. Micklethwaite	Moth (Gipsy II)	3 10	19 47	102½		THIRD
J. T. Baxter ..	Moth (Gipsy II)	2 35	20 16	103½		6th
A. Henshaw ..	Swift (Pobjoy R)	Scr.	19 30	127½		FIRST



On the left is Mrs. Bonney, who recently flew from Australia and visited the display in her "Moth." In the centre Maj. J. E. D. Shaw, the President of the Club, is presenting second prize for the long race to Mr. Micklethwaite. On the right is Mr. A. Henshaw, who came in first in both races, but was unfortunately disqualified for cutting a corner in the first. He has recently taught his father (standing behind the machine) to fly, and now the two are seen together at all meetings. (FLIGHT Photos.)

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Humour was given to the display by the Western Brothers, who ascended with shot guns, ostensibly to shoot down a "tunny fish." The "fish," however, refused to rise into the air and finally rolled over the aircraft park and the hedge beyond, to an adjacent field.

A *Concours d'Elegance* was won by Flt. Lt. Allen with the Duchess of Bedford's "Puss Moth." This machine will soon have won a prize for this event at nearly every flying meeting in the country, if it continues at the present rate; it is really beautifully kept, and Flt. Lt. Allen ought to be congratulated on the condition of the engine in particular. Mr. Henshaw was second with his Comper "Swift." A second class in this competition, provided for machines with a history. The first prize went to Mrs. Bonney, whose "Moth" has carried her from Australia, and the second prize to Mr. Richardson, whose "Blue-bird" had been flown to the Cape during February, 1929, by Wing Com. (then Sqd. Ldr.) L. H. Slatter.

Other similar events, mostly repetitions, carried the programme to 9.30 p.m.

It was really very bad luck on the club not getting better support for this meeting, and this seems the right time to review the whole question of the type of display which clubs should organise.

Circumstances are not always the same, and therefore the type of publicity and programme which is suitable for a municipal affair near a large city may not be the most suitable for a young and growing club, whose aerodrome is some distance away from the town, and who wants to attract, not the general public, but potential members.

If we are to judge by the comments of those in the club enclosure, and also those in the "bob" enclosure, the display at Ganton fell short of the ideal on many counts, the result being by no means commensurate with the amount of work put in. The club itself was not, in this case, responsible for the programme, but only for the ground organisation. This certainly went smoothly, and all visitors were made most welcome, although it looked as if Mr. Baynes and his fiancée, Mr. Bower and

Wing Com. Woodhouse could all have done with a little more help than they got.

As regards the programme, we feel that a shorter, snappier one, with something in the air the whole time, no waits and more real flying, would have filled the bill better. It ought not to have been longer than from 3 to 5.30 p.m., so that there would have been more time for joy-riding and consequent financial reward. As it was, it was only possible to carry out intermittent joy-riding, and large numbers of people had to be turned away.

It ought to have been possible to arrange that the heats for the second race were run off during the morning, and that there was something doing in the air right up to the moment that those in the finals were ready to start. Races like that are not very exciting and, judging from the remarks we heard in the cheap enclosure, did not interest the general public at all. The final of the short race was good, and proved again the expertness of our handicappers, but even that appeared only to excite those directly concerned with the competitors.

No, it ought to be realised that a club like Scarborough benefits far more by going out to get only those who are really keen on club flying. It doesn't cost a very great deal to invite all that sort of people, circularising other clubs will do a lot, and the result will be that the gathering is composed of people who are definitely interested in the club as a club, and for what it can offer them either as members or as air visitors. The flying programme need then also cost but little and be merely an excuse for a garden party. Where the general public are got to the aerodrome by expensive press and other advertising, it is vitally necessary that they are given a programme which will make them feel that they have got value for their money. They are not interested in the club itself; all they want are thrills out of "this 'ere aviation business," and if they don't get them, but have to sit about during long waits, they just go away fed up and bored stiff with flying, a result which does no good to those whose livelihood depends on getting new people into the game; in fact, it definitely makes things more difficult.



From the Clubs

LONDON AEROPLANE CLUB

Flying instruction was transferred to Hatfield for Saturday and Sunday, owing to the National Aviation Day Display at Stag Lane. However, work was resumed again at Stag Lane on Wednesday. Maj. Travers was away until Thursday. Mr. G. M. Fuerst completed his "A" licence tests and Mr. K. Hensman, of Rhodesia, joined the Club.

HANWORTH (N.F.S.)

For the week ended August 4 Club flying totalled 68 hr. Col. the Master of Sempill put in some 17 flying hours during the week, visiting places as far afield as Yeadon, the Lizard, Teignmouth and the island of Sark. From the latter place he brought back a Dancy calf, which appeared to approve the cabin of the "Puss Moth." Mr. Falk and the Hon. Geoffrey Cunliffe were given dual by Capt. Wilson. The latter flew solo the next day for 1 hr., this being his first solo flight for a long time. Miss Tilney, who learned to fly when she won the *Tattler* competition some time ago, returned to the Club after an absence of about one year, and was given dual instruction. Wing Com. Guilfoyle visited the Club and did some flying, and Maj. Draper also hired a machine. Mr. Mayne, a new member 60 years of age, was given his first dual instruction. Mr. Guttermann returned from his trip to Germany, and Mr. Back made two flights to Bournemouth and back. Capt. Ayre returned with Mr. de Worms from a tour of all N.F.S. stations. The tour was made in the Desoutter G-AAPZ. Mr. von Bahr and passenger, and Mr. Wynn-Eyton in another machine, flew to Aldeburgh and back, completing successful cross-country solo flights. Mr. Uebele, a German member, had first dual instruction for his "A" licence.

YORKSHIRE AEROPLANE CLUB

Sir Alan Cobham's National Aviation Day Display was held at Yeadon on August 5. Club machines flew 27 hr. during the week and activities include a flight to Thornaby and Ganton Aerodromes.

EASTERN COUNTIES AEROPLANE CLUB

Flying time for the week, 40½ hr. Cross-country flights were made by Mr. Kirton and Mr. Savory to Bircham Newton and by Mr. Kirton and Mr. McClean to Elmswell, while Dr. Sleight made a circular flight Colchester, Epping, Southend, Colchester. Egerton's held their annual Bedford and Chevrolet drivers' rally at Ipswich Airport, and a successful grass track meeting was held at Blue Barns Aerodrome on July 30. Mr. W. H. Johnston passed his tests for the "A" licence. New members who joined were the Hon. Mrs. Gurden, Mr. G. Millar, Miss Ridley Hooper and Mr. A. Hancock.

CINQUE PORTS FLYING CLUB (LYMPNE)

No. 601 Squadron of the Auxiliary Air Force is in camp at Lympne, and adds considerably to the gaiety of the airport. Rather to everyone's surprise, it has been found that the squadron of "Harts" can operate from the aerodrome without interfering with instruction at the Club, a fact which speaks well for the organisation and discipline of the squadron. Preparations for the Folkestone Aero Trophy are well under way. Since the International Air Rally the Club has again got into its stride, and flying hours have mounted once more to some 63 hours dual and about 50 hours solo during the past ten days. "A" licences were obtained by Messrs. Ness and Parminter, and Mr. B. Munslowe has done his first solo. Mr. L. T. H. Cliff has been working hard for his instructor's ticket since he got his "B" licence, and should obtain it any day.

Two successful night flights were made through the Club for "B" licences by Mr. Wren and Mr. Pritchett, both of whom chose the Lympne-Croydon route. New pupils are Messrs. Daggett, Glenny, Willis and Barksfield. A lecture room has just been established in the hangar. Here ground instruction and navigation lectures will now be a regular feature. Although not an elaborate affair, the room will be very welcome.

LEICESTERSHIRE AERO CLUB (DESFORD)

During the month of July 140 hours were flown. On July 1 Mr. D. C. Winn won second prize in the Liverpool-Blackpool-Liverpool air race. During the night, July 1-2, night flying took place at Ratcliffe aerodrome. Members were able to take passenger flights in Mr. Lindsay Everard's "Dragon" and "Moth," and in the Club "Puss Moth." The proceeds were handed over to the Club's New Aeroplane Fund. On Sunday, July 2, there were 17 visiting aeroplanes on the aerodrome at Desford. The total for the month was 63 aeroplanes. During July there were 37 cross-country flights to 12 different aerodromes. The Club has bought another "Gipsy II" metal "Moth" (G-ABTF) to replace the "Gipsy I" "Moth," G-AASM. The fleet now consists of two metal "Gipsy II" "Moths" and one "Puss Moth." "A" licences were obtained by Mr. J. H. Wilson, Dr. C. K. Millard, Mr. G. A. B. Cooper and Mr. P. J. Hippisley Heycock. The Club is closed until August 18, and no services are available.

BROOKLANDS SCHOOL OF FLYING

During the week ending August 5 Brooklands was very busy, and completed about 100 hours of instructional flying. Mr. Peter Bartlett has joined the staff to assist in coping with the work. Messrs. Jock Wren and Mr. Pritchett completed the night-flying tests for their "B" licences. Mr. J. Hornby and Mr. Vokes made successful solo flights. New pupils include Miss Mitchell, Miss Andrews, Master P. Cresswell, and Mr. R. Dixon. The Brooklands, Cinque Ports, and Northampton Clubs have now together a total membership of 1,200, and cross-country visiting flights between the three clubs are proving popular, and are much encouraged by the management. The Service Department has been working up to midnight, and Mr. Massey is to be congratulated on the splendid team work of his staff. Full details of the Ted Jones Trophy and of the Shipwright Competition are now available, and application for particulars should be made to the Secretary of the Brooklands Aero Club. The Brooklands Airways' machines have been very busy, among the many foreign places visited being Paris, Le Touquet, and Lille, while at home shorter flights were made to Cowes, Ryde and Norwich, among others.

NORFOLK AND NORWICH AERO CLUB

From the Club's report for July we quote the following extracts:—The Club has now been in its new clubhouse for six weeks, and the staff has quite settled down in the new premises. The bedrooms are proving to be valuable assets, and two members are spending their holidays at the Club in order to save delay in starting in the morning. The Club is again indebted to Mr. James Hardy, who, in the beginning, started the Club off by giving, with the Lord Mayor, the Club its first machine. Now Mr. Hardy has very generously offered to pay for a pupil to be fully trained for his "A" licence. The Club consequently started a scholarship open to the general public, who could enter by buying one of the Club's one-guinea trial lessons. The winner will be announced shortly. "Archæological" flying for the purpose of tracing ancient sites by the colouring of the corn crops has been carried out, and the Club has made a considerable study of aerial photography in this connection. Miss W. F. Hudd, the Club's first lady pilot, and Mr. A. Kirkby, the Ground Engineer, are spending part of their holidays on a flight abroad in one of the Club's machines, G-ABAE. They intend to visit Berlin.

THE SOUTHEND FLYING CLUB

The Southend airport at Rochford is becoming increasingly popular as a port of call. Situated by the Thames Estuary, it offers many attractions to visitors who arrive by air. On Sunday week last, Mr. D. B. Wrightson brought a party of friends from Hatfield in his "Dragon." They added gaiety to the visit by giving a burlesque imitation of the Southend tripper, arriving in paper hats and streamers, and with a gramophone playing as the machine landed. Mr. Lipton, of the London Aeroplane Club, paid another visit on his "Moth," "Jason 4," and Capt. Mackintosh used the aerodrome in the interim be-

tween his flights with the Hospitals Pageant. The Club "Moth" has gone for its C. of A., and in the meantime a Spartan "Arrow" has been obtained for flying instruction, and the Spartan three-seater was back again on Sunday for passenger flying. The weekly flannel dances continue to be very popular, and that on July 29 was the best attended so far this season.

There was considerable activity at Rochford Aerodrome during last week-end. Among visitors by air were Mr. MacLoughlan in the R.A.F. Reserve Flying Club's "Moth," Mr. Mark Young ("Gipsy Moth"), Mr. Ray ("Cirrus Moth") from Hatfield, and Mr. Malone (Spartan "Arrow"). Air taxi work included a passenger to Croydon to catch the Imperial plane to Paris, *en route* to Barcelona, and two journeys to Clacton, as well as the usual trips to Maidstone and Gravesend. On Monday evening all the Club machines paid a late call on Loughton Aerodrome. Mr. J. Nicholson, who has now returned to Burma, and Mr. C. A. Oscroft, have passed their tests for the "A" licence, bringing the number of "A" licences obtained under Capt. H. A. Love so far this season up to ten. The Club now has 14 "A" pilots. Mr. Flint, formerly ground engineer at Blue Barns, has now joined the ground staff. Mr. Harrison, of Leigh-on-Sea, took his first flight at Rochford recently, and enjoyed it so much that on his forthcoming visit to Yarmouth he has decided to go by air, as he considers flying preferable to motoring. Mr. Harrison is 86 years of age.

AERO CLUB OF INDIA AND BURMA

The next annual race for the Viceroy's Challenge Trophy will be held in Delhi about the middle of February, 1934. It is hoped that any pilot contemplating flying through India about that day will so arrange matters as to be able to enter. In addition to the Viceroy's Challenge Trophy, there will be several other trophies and cups, and also cash prizes amounting to something like £500. Any type of aeroplane may be entered, and lady pilots are eligible. The final details have not yet been decided, but it is probable that the race will be over a course of some 700 miles, with three or four compulsory stops. It will be completed in one day. Full particulars will be announced in due course.

A.S.T. ACTIVITIES DURING JULY

During the month of July, 771 hours of instructional flying were carried out on the School's land and sea aircraft. Amongst the numerous visitors to the School were the Directors of Imperial Airways, who made a thorough inspection, and a formation of eight aircraft of the Oxford University Air Squadron. Mr. Burton and Señor Pardo both spent a few days at the School and flew the "Siskin." Messrs. Hankey, Hell, Gazdar, and MacPhail passed the Technical Examination for their "B" pilot's licence. Mr. Wallace has joined for his "B" pilot's licence, and will be flying the "Cadet," "Tutor," three-engined Avro V, Avian seaplane, and "Cutty Sark." He is also taking the Blind-Flying, 2nd Class Navigator's certificate and wireless courses. Messrs. R. E. Gardner (Jnr.), Mursell and Choksey have arrived to qualify for the "A" pilot's licence, and Mr. Kumar, to obtain endorsements to his "A" and "C" ground engineers' licences. Mr. Crow (S. Africa) has joined the School for the long course, the next term for which is due to commence on the first Monday in September.

THE DE HAVILLAND SCHOOL OF FLYING, HATFIELD

THE flying time for the week ending August 4 was 108 hr. 45 min. Sir Alfred Beit, who had his first 3 hr. instructional flying in a "Puss Moth," without the discomfort of helmet, goggles or telephones, has now completed 20 hr. solo. Mr. Stacey, of the Stage and Screen Aero Club, made his first solo flight on Friday, and Mr. Douglas (from "10 Minute Alibi") has commenced a course for his "A" licence. W. W. Wakefield and P. C. Horden, two stalwarts of the Rugger world, have commenced their R.A.F. annual training, which includes blind flying, aerobatics, camera-gun practices, etc. Mr. Hutchinson, chief engineer at Stag Lane, has completed 2 hr. solo towards his "A" licence. An additional 90 acres have been acquired for the aerodrome, which will increase the east and west run-way to over a mile. The swimming pool is in great demand by Club members, many of whom swim in the evening and stay for supper or bacon and eggs. 180 applications for membership have been received during the week.



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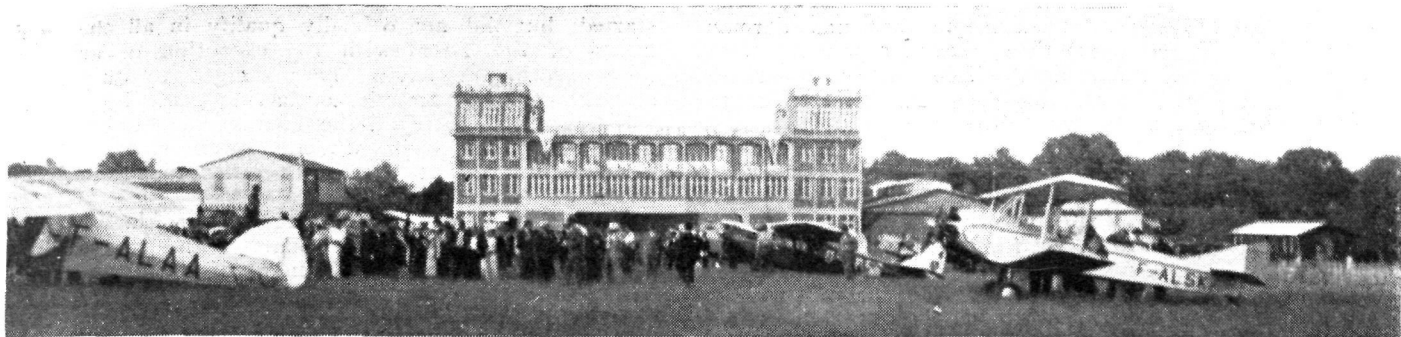
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Outside the clubhouse, Buc.

THE CONCLUSION OF THE TOUR OF FRANCE

THE finish of the "Tour of France" presented a busy scene at the Blériot Airport at Buc (near Versailles) on Sunday afternoon, July 30 last. The faster planes began to arrive shortly before 4 o'clock and the others followed in a continuous quick succession until there were some 60 tourist machines, including the several official planes accompanying them, lined up along the easterly side of the big field. About 30 other planes, containing friends of the tourists, also flew to Buc somewhat earlier in the afternoon to welcome them home. Their machines were grouped together on the northerly side of the field.

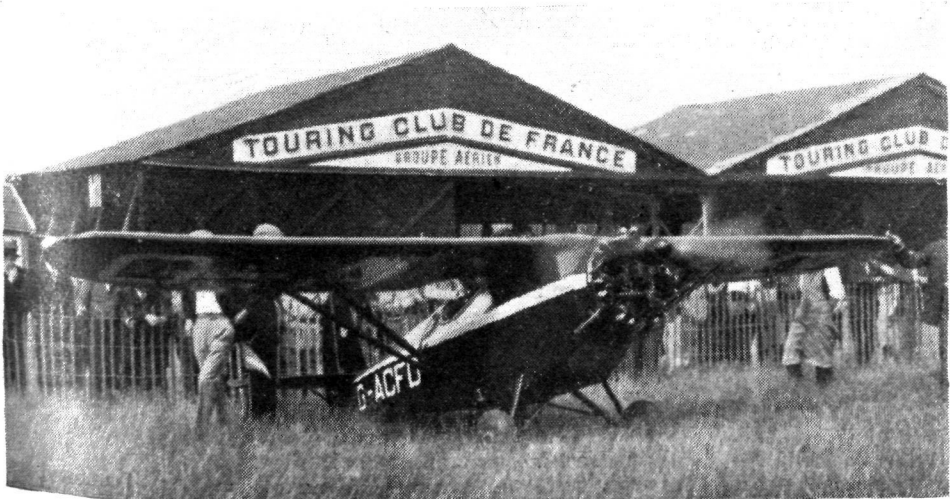
The progress of the Tour up to the arrival at Deauville, Friday afternoon, July 28 last, was described in last week's issue of FLIGHT. The departure from Deauville had been scheduled to take place early Saturday morning, but owing to the fog and mist prevailing it was deferred until about noon. Accompanied by the four Belgian planes, the tourists then took off for Brussels, stopping at Berck and Knocke-Zoute *en route*, where the Customs formalities were quickly effected, and arrived at the Belgian capital, without incident, late that afternoon. A visit to the Brussels Town Hall followed, and a ball, organised in honour of the tourists by the Royal Aero Club of Belgium, was held in the evening.

The Air Minister, M. Pierre Cot, who had flown in his own plane to meet the Tour at la Baule and accompanied the planes to Deauville, had intended continuing with the Tour to Knocke-Zoute. But on account of the delay caused by the bad weather this part of the programme had to be cancelled and the Minister returned to Paris by air Saturday afternoon.

After a morning of rest, the planes began to "take off" from Brussels about noon on Sunday for Buc, the last section of the Tour. A short stop was made at Valenciennes to pass the Customs, and an official luncheon of some 80 covers, presided over by the Mayor, was given the visitors by the local aero club. The short flight from Valenciennes to Buc was uneventful and the returning tourists found a large crowd of friends and officials

THE FINISH OF THE TOUR OF FRANCE
THE OFFICIAL LIST OF THE ARRIVALS AT BUC, AS GIVEN OUT AT THE CLOSE OF TOUR, IS AS FOLLOWS :—

Pilot	Machine and Engine
Roger Nouvel ..	Farman 231, 95-h.p. Renault
Roger Savarit ..	" 351, 95-h.p. "
Gabriel Saulnier ..	" 350, 95-h.p. "
Marcel Bétrancourt ..	" 234, 95-h.p. Salmson
Jacques Puget ..	" 234, 95-h.p. "
Miss Aleck Plunian ..	" 353, 130-h.p. " Gipsy Major "
Michel Faure ..	Caudron " Phalène," 130-h.p. Renault " Bengali "
Roger Millo ..	Caudron 280, 135-h.p. Salmson
Marcel Chalan ..	Caudron " Phalène," 130-h.p. Renault " Bengali "
Pierre Falck ..	Potez 43, 130-h.p. Renault " Bengali "
Raoul Duval ..	" 43, 130-h.p. "
Dr. Jules Crochet ..	" 43, 130-h.p. "
Charles Lafabregue ..	Caudron " Phalène," 120-h.p. " Gipsy III "
Pierre Decroot ..	Farman 200, 121-h.p. Salmson
Albert Frémont ..	Caudron 270, 95-h.p. "
Giroud and Prevost ..	" 270, 95-h.p. "
Michel Decugis ..	" 270, 95-h.p. "
Marcel Barrier ..	" 270, 95-h.p. "
Gaston Augrain ..	" 272, 95-h.p. "
Marcel Rongeat ..	" 270, 95-h.p. "
Delaporte and ..	" 270, 95-h.p. "
Arnaud ..	
Gilbert Denis ..	" 270, 95-h.p. "
Paul Magnat ..	" 270, 95-h.p. "
Louis Gardair ..	" 270, 95-h.p. "
Michel Desbruns ..	" 270, 95-h.p. "
Pierre Collin ..	Potez 43, 100-h.p. Potez
Dr. André Dupechez ..	" 43, 100-h.p. "
Albert Peuteuil ..	" 43, 100-h.p. "
Michel Célerier ..	" 43, 100-h.p. "
Joseph Bouesse ..	" 43, 100-h.p. "
Albert Dreyfus ..	" 43, 100-h.p. "
Michel Cornet ..	" 43, 100-h.p. "
Marcel Serrat ..	" 43, 100-h.p. "
Fougues-Dupac ..	" 43, 100-h.p. "
Michel Cros ..	" 43, 100-h.p. "
Michel Francun ..	" 43, 100-h.p. "
Michel Devaulx ..	" 43, 100-h.p. "
Louis Suard ..	Caudron " Phalène," 130-h.p. Renault " Bengali "
Emile Charpentier ..	Potez 36, 95-h.p. Salmson
Marcel Pierre ..	" 36, 95-h.p. "
Roger Bril ..	Caudron 232, 95-h.p. Renault
Marcel Lallemant ..	" 272, 95-h.p. "
Jacques Vinchon ..	" 270, 95-h.p. Salmson
Michel Hauducœur ..	" 271, 100-h.p. Lorraine
Marcel Legendre ..	Potez 36, 95-h.p. Renault
Raoul Lhuillery ..	" 36, 95-h.p. "
Dr. Gleize Rambal ..	" 36, 100-h.p. "
Marcel Dangoise ..	" 36, 90-h.p. "
Michel Forget ..	" 36, 95-h.p. Salmson
Louis Erb ..	" 36, 95-h.p. "
Edmond Hadengue ..	Zodiac-Mauboussin, 45-h.p. Salmson



awaiting their arrival at the Blériot Airport.

The Air Minister was represented by Capt. Domino, of his personal staff, who had flown to Buc in a Morane-Saulnier training plane (120-h.p. Salmson). Inspector General Joseph Fortant, of the Service Technique, and Capt. Lartigue, Chief of Naval Aviation, were also among those to greet the returning tourists. Henry and Maurice Farman flew over from their

Georges Reginensi—and his Comper "Swift" (Pobjoy)—was a visitor to Buc when the Tourists arrived.

nearby Toussus-le-Noble aerodrome in their new Farman, type 390 (a light transport three-passenger plane, powered with a 150-h.p. Farman radial air-cooled geared engine), and Paul Louis Richard, the Technical Director of the Aéropostale Air Line System, also came by air to Buc in his Morane "Gipsy Moth" to greet his friends.

A number of pilots were also on hand, among them Georges Reginensi, the well-known long-distance flight airman, who was piloting his little Comper "Swift" machine, equipped with a Pobjoy engine.

Thus the Third Annual Tour of France, organised by the Union des Pilotes Civils, with the aid of the Paris Daily *Le Journal*, came to an end. After an itinerary of 3,700 km. (2,100 miles), lasting 10 days, some 50 planes of the 57 leaving Orly on Friday, July 21 last, returned to Buc (adjacent to their starting point) without a single dismounting or change of any part of the engines or of their machines. Of the seven planes that

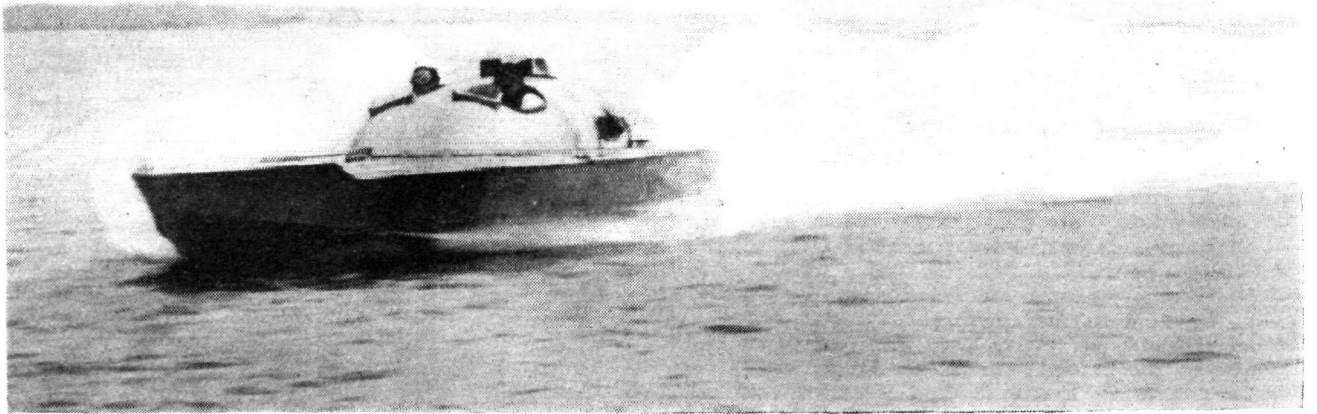
started, but did not officially qualify in all the requirements of the Tour (with the exception of one unfortunate accident), having been obliged to drop out on account of minor troubles or having made bad landings, three were able to rejoin the Tour at Biarritz and to continue on to the finish, while a fourth machine left the Tour voluntarily at Cannes in order to remain in the South of France.

Six official planes, comprising the machines of Marcel Haeglen, the Commissioner General, and that of Pradel de Lamaze, the Secretary General of the Tour, together with four others transporting newspaper correspondents and the Alexander Jazz Band, also made the entire circuit without incident. Miss Maryse Hilz, the well-known aviatrix, piloting her Farman type 190 plane, Gnome & Rhone 300-h.p. engine, likewise accompanied the Tour from start to finish.

R. C. W.



MISS BRITAIN III. This photograph shows her at speed. It should be noted that the stern is out of water and that the boat is, so to speak, skating over the surface. The Napier "Lion" engine, which will be used for the race, develops 1,375 h.p. at 3,600 r.p.m. Gearing puts the propeller speed up to 7,200 r.p.m. under these conditions



Aircraft Design on the Water

THERE can have been few people—if any at all—who did not give a gasp of astonishment when, on Thursday, August 3, they first saw the new racing motor boat which Mr. Hubert Scott-Paine has built to challenge Commodore Gar Wood, the holder of the Harmsworth International Trophy. "Miss Britain III," as he has named her, shows in every line evidence of aircraft practice, and there is no doubt that it is Mr. Scott-Paine's long association with building flying boats which has helped, very materially, to produce this "Master Piece." All Mr. Scott-Paine's boats are beautiful to look at, but this new one has a charm all its own. It is perhaps somewhat early to be eulogistic over the boat, though she has already created records by being the first boat to travel at over 100 m.p.h. on salt water, as well as being the first metal boat built for racing.

In the main "Miss Britain III" consists of an "Alclad" hull built over wooden frames, for the most part Rock elm and African mahogany, with sheet-steel fittings. She is driven by one of the 1927 Schneider-type Napier "Lion" engines, developing 1,375 h.p., as against "Miss America X's" four engines giving out no less than 8,000 h.p.

Like all boats which come out of the British Power Boat factory at Hythe, Southampton, "Miss Britain III" is particularly stable on the water. She has but a

forward rudder, and the design has overcome any difficulties arising through having the engine right aft. She appears to ride almost flat on the water and to cause practically no wash at all. Her length is 24 ft. 6 in., beam 8 ft., and aft there is barely 2 in. freeboard. Getting a power plant of this horse-power into a hull of this size naturally raised problems which had never been faced before, but all these have been solved satisfactorily, and by adhering to aircraft principles in so many ways. The astounding weight of 2.5 lb. per h.p. has been achieved. The engine drive is taken forward to a gear, raising the propeller revolutions to twice those of the engine. The gear was designed at the British Power Boat Works, and, apart from the actual wheels, which were made by Napier's, everything to do with it and the whole boat was also turned out at Hythe. A streamline-cockpit fairing covers the engine and the cockpit, and is easily removable. The dashboard is, again, very like that in an aeroplane, and carries Smiths' aircraft-type instruments on it. Perhaps the most remarkable thing about the whole venture is the fact that only nine weeks and four days elapsed between the time the design was started and the trials were run.

We hope that Mr. Scott-Paine's enterprise will be rewarded in the manner it deserves, as his task, quite apart from the technical difficulties, has been immense. He takes with him the good wishes of the aviation community.

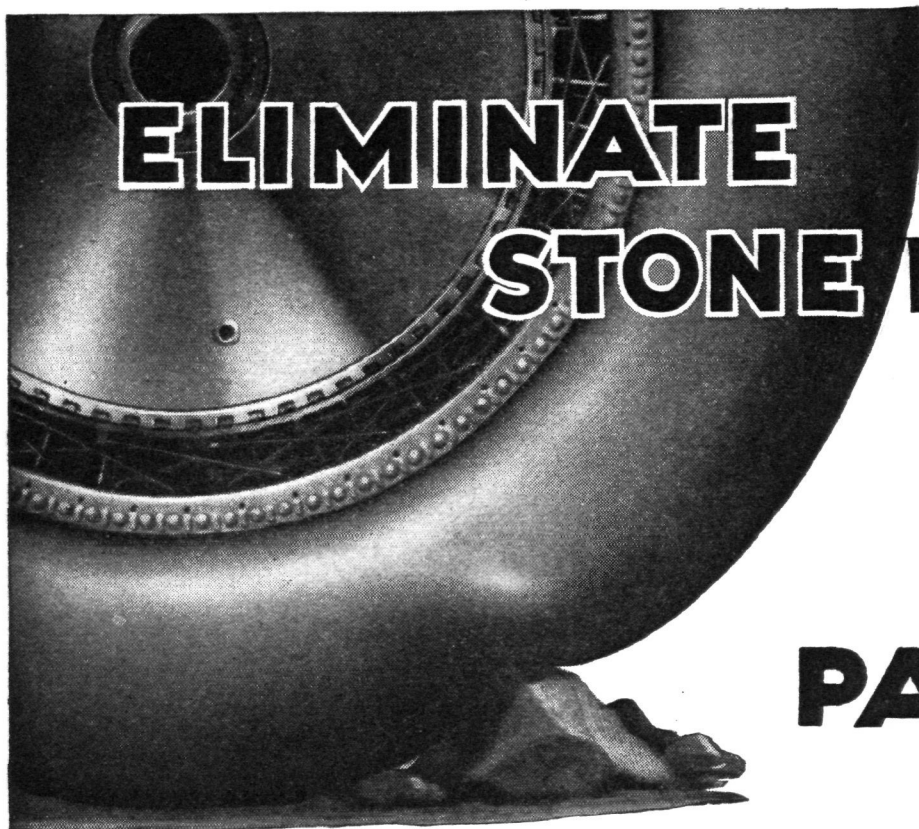
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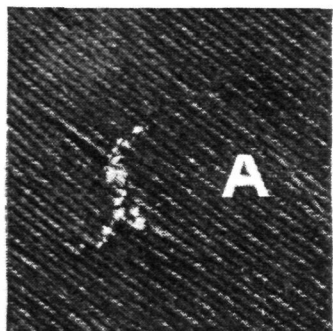
ELIMINATE

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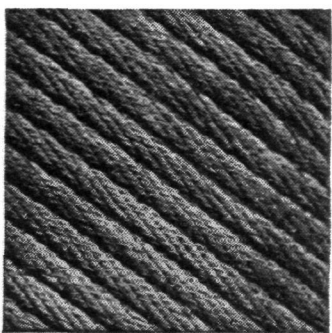
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Air Transport

THE NEW DEWOITINE TRANSPORT MONOPLANE, D.332

THE new Dewoitine three-engine, low-wing cantilever, Transport Monoplane, built at Toulouse for the Air Orient Co., has just arrived at Villacoublay to undergo its official trial tests by the Service Technique. This machine, of metal construction throughout, is designed primarily for long-distance rapid-transport service on the Far-Eastern sections of the Air Orient system.

Equipped with three Hispano-Suiza, type 9V., air-cooled radial engines, having a rated power of 575 h.p. and a maximum power of 650 h.p. each, this plane has a maximum speed of 187 m.p.h. (300 km./hr.) and a cruising speed of 156 m.p.h. (250 km./hr.). The flight radius is some 1,250 miles (2,000 km.), and the ceiling with one engine stopped 3,000 m. (9,750 ft.).

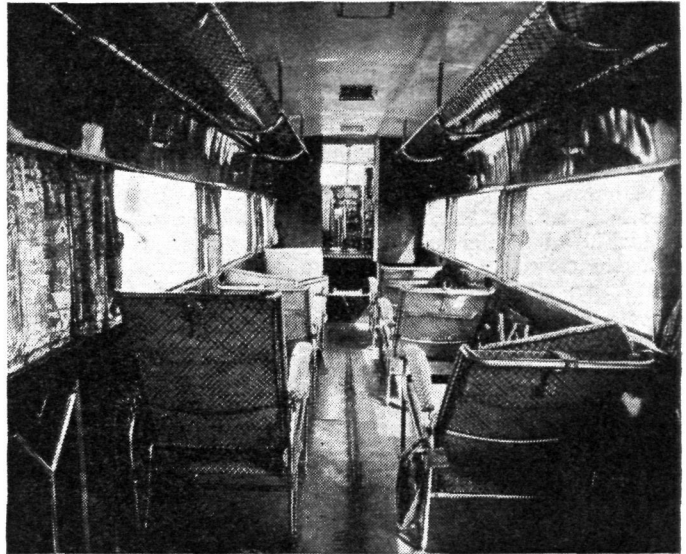
The plane carries two pilots, a radio operator and a mechanic, and is designed to transport a commercial load of 1,200 kg. (2,640 lb.), consisting of passengers and freight. The cabin is fitted with eight large reclining chairs to be used by passengers during the long flights of the night services. Piloted by Marcel Doret, the chief pilot of the Dewoitine Co., this plane flew from Toulouse to Paris, a few days ago, having six passengers on board, in 2 hr. 22 min., at a cruising speed of 250 km./hr. (156 m.p.h.).

The wings are of the standard Dewoitine single-spar type of construction with two box spars, one on each side of it. The form is a trapezoidal one, tapering to a distinct elliptical shape at the extremities. They consist of a centre section built into and forming part of the fuselage, to each end of which the wings are joined. A wing covering of smooth sheet vedal (duralumin alloy) is used.

The seats of the two pilots are enclosed and installed, side by side, in the front part of the fuselage. The plane is equipped with dual controls, the seat of the radio operator being behind those of the pilots.

The cabin containing the eight passenger reclining chairs is in the centre, and a large baggage hold of 69 cu. ft. (2 cu. m.) dimensions is installed in the after portion of the fuselage.

The engine mountings are constructed of chrome nickel steel tubing reinforced by steel ribs. The landing gear is in two independent units, each one of which is installed under a lateral engine. Each unit is equipped with



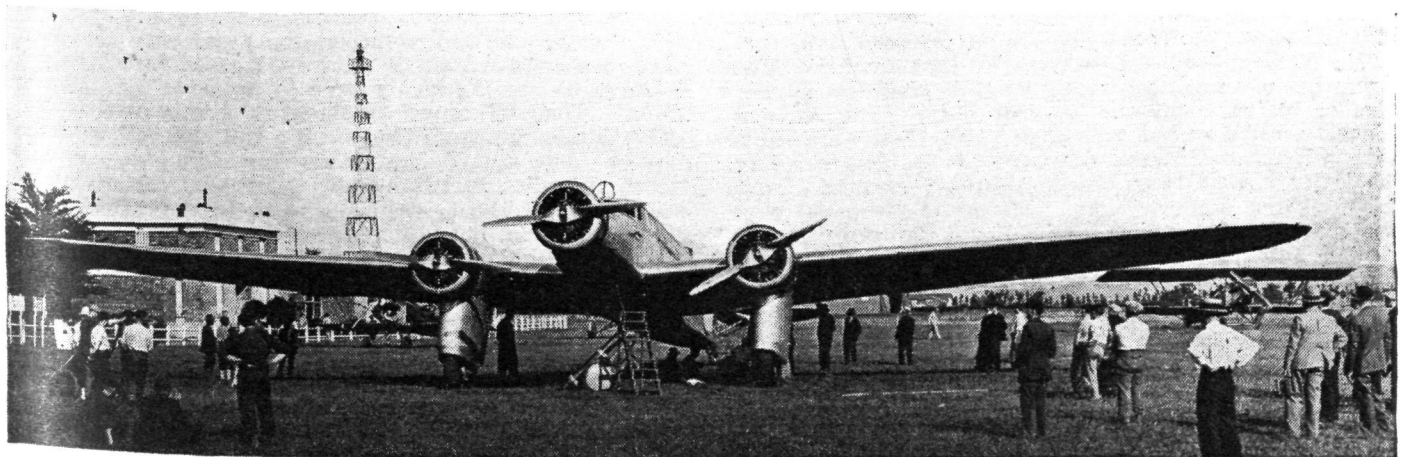
The cabin of the Dewoitine D.332, showing the large reclining chairs for passengers on long night flights.

Messier Oleo-pneumatic shock absorbers, and the wheels are fitted with spats. A tail landing wheel is used, mounted on an oleo-pneumatic shock absorber.

The fuel tanks have a capacity of 3,200 litres (711 British gallons approx.), and are equipped with quick-emptying devices. Each engine has an oil tank of 85 litres (19 British gallons) mounted behind the fire wall. The plane is equipped with two-bladed metallic Levasseur propellers.

The principal characteristics of the D.332 are:—Wing span, 29 m. (94 ft. 3 in.); length o.a., 18.95 m. (61 ft. 7 in.); height, 5.45 m. (17 ft. 9 in.); wing surface, 96 m.² (1,014 sq. ft.); weight of plane, empty, power plant and fixed installations included, 5,280 kg. (11,616 lb.); fuel, general and special equipment, including crew, 2,870 kg. (6,314 lb.); pay load, 1,200 kg. (2,640 lb.); total weight, 9,350 kg. (20,570 lb.); maximum speed, 300 km./hr. (187 m.p.h.); cruising speed, 250 km./hr. (156 m.p.h.); ceiling (one engine cut out), 3,000 m. (9,750 ft.).

R. C. W.



The Dewoitine D.332 three-engined transport monoplane (Hispano-Suiza 9V engines). It is intended for service on the Far Eastern air routes.

New German Night Air Mail Services

Two new night air-mail services were inaugurated on August 1—one between Nuremberg-Munich-Frankfurt a.M., and the other between Stuttgart-Frankfurt a.M., both connecting with the established night services to London, Paris, Brussels, Berlin, Copenhagen and Malmo.

A French Night Air Mail Service

A new night air mail service between Paris and Marseilles was inaugurated on August 5 when a machine left Le Bourget at 11.30 p.m. with mail for the South of France, Morocco and South America. A machine also left Marseilles for Paris at 12.30.

THE INDIA—AUSTRALIA AIR ROUTE

MAJOR H. G. BRACKLEY, D.S.O., D.S.C., Air Superintendent of Imperial Airways, has just returned from a survey flight across India, along the proposed air route to Darwin, and down to Brisbane, Canberra, Sydney, and Melbourne. He went out in the Armstrong-Whitworth "Atalanta" monoplane *Astraea*, with Capt. Hazelrigg as second pilot, and a crew consisting of Mr. Brown as wireless operator, Mr. Griffiths as engineer, and Mr. W. Hickman as representative of the Armstrong-Siddeley firm. On the return flight he brought with him Mr. Hudson Fysh, managing director of Q.A.N.T.A.S. They took the *Astraea* back as far as Karachi, and there she was left to go on the Karachi-Calcutta service. The party made the rest of their way home by the ordinary Imperial Airways service via Baghdad, Cairo, Athens, and Brindisi.

The route across India is to run as hitherto from Karachi to Delhi via Jodhpur. From there on it cannot yet be considered as quite cut and dried, as the operating companies (Imperial Airways, it will be remembered, are working with an Indian company called Indian Transcontinental Airways) are still in consultation with the Government of India as to the places where it is most expedient to land. Cawnpore is an obviously desirable stop, as it is the greatest commercial and manufacturing centre in North India. Cawnpore cotton, wool, and leather are well known to all who have lived in India, and are highly appreciated by them. Allahabad is the next stop, and Major Brackley says that the aerodrome there is the best on the whole Indian route. This city, however, is waning in importance. It is the capital of the Province of Agra, and once shared with Lucknow the honour of being alternate seats of the Government of the United Provinces of Agra and Oudh. Now the seat of the provincial Government has been permanently situated at Lucknow, though the High Court of Justice still remains at Allahabad. The Director of Civil Aviation in India (Mr. Tymms) is considering whether it would not be advisable to substitute Moghul Serai for Allahabad as an air port. The former is an important railway junction, but has not much other significance, and at present there is no aerodrome there. On the flat Gangetic plain, however, it should be easy and cheap to make an aerodrome almost anywhere. Other landing places which have been tried are Gaya, chiefly famous as the place where the Buddha found enlightenment, and Asansol. The existing aerodromes at both are bad, and neither is of much commercial importance. The Calcutta aerodrome is at Dum Dum, a few miles outside the city, from which the famous expanding bullets took their name. The spelling which we used is phonetic, and is universally adopted. A correct transliteration of the Bengali name would be Dam Dam, which might be liable to provoke unseemly jests. This aerodrome was recently flooded, and further drainage operations are desirable, and will, it is understood, be put in hand.

This flight of the *Astraea* was deliberately undertaken during the monsoon, so as to give Maj. Brackley a knowledge of Indian conditions at their worst. The Karachi-Calcutta route does not present the same difficulties as the Karachi-Bombay-Madras route flown by the Tata Air Line. The latter has to cross the considerable mountain range known as the Western Ghats, whereas the Imperial route is across the flat plains drained by the rivers Indus, Ganges, and Jumna. The Indus flows into the sea at Karachi. The other two descend from the western Hima-

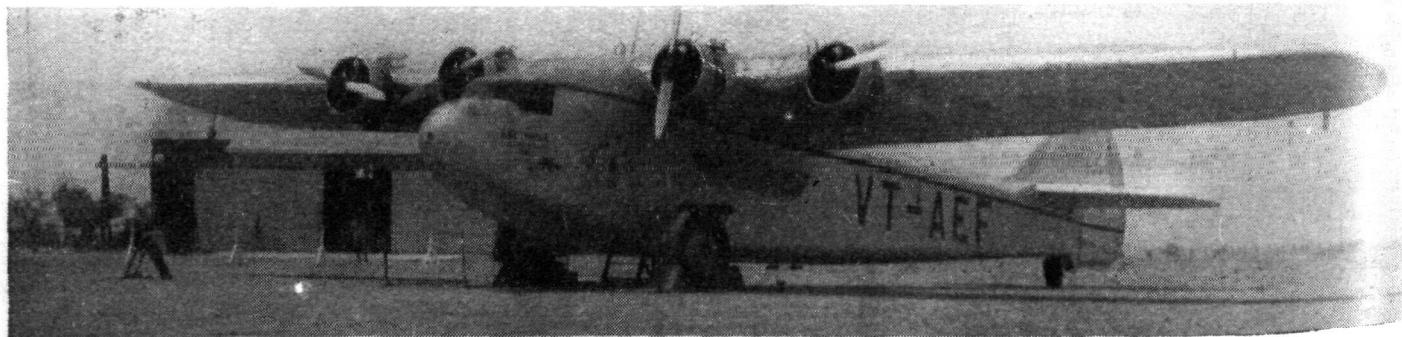
layas and flow eastward on roughly parallel lines until they unite at Allahabad. The powerful *Astraea* was able to make her way round, or above, or through the monsoon storms without undue difficulty.

From Calcutta onwards comes the most difficult part of the route. There are various choices of landing grounds. The most direct route for the first stage is to fly across the open Bay of Bengal to Akyab, but a shorter sea crossing may be made at the cost of greater mileage by flying first to Chittagong and then coasting down to Akyab. Rangoon is the next important place to visit, and there are three ways of getting there. One is to cross the mountains at once to Minbu and then turn due southward through Prome to Rangoon. The south-west monsoon surges up against the mountain range and breaks up against it. On the east of the range there will usually be finer weather. The second possibility is to fly along the strip of land on the west of the mountains to their southern extremity, and then turn eastward across flat country to Rangoon. The third way is to fly out to sea off the coast. Maj. Brackley tried to do this, but the monsoon clouds came low down almost on to the surface of the Bay, and there are plenty of islands off the coast. They are not mountainous, but they are heavily wooded, and after a while Maj. Brackley decided that wave-hopping in blindness was not sufficiently amusing, so he went inland and climbed. It seems that this was not a pleasant flight.

The next stage was from Rangoon to Bangkok, the capital of Siam. The Siamese seem anxious that Imperial Airways should fly through their country, and, of course, there is a good chance of picking up traffic there. From the flying point of view it is an advantage to get east of the mountain range. The Siamese share with the Japanese the reputation of being the most air-minded people in Asia. They are preparing a line of aerodromes down the River Tachin, at Pitsanulok, Paknam Po, and Lop Buri, and Maj. Brackley had been informed that they would be ready for use and inspection. None of them was ready, so he flew right through to Bangkok. On the way he had a surprising experience. The monsoon clouds lay thick from the ground up to some 9,000 ft. He climbed up to 10,000 and then found himself in clear air between two layers, and proceeded to fly by instruments and D.F. wireless. Suddenly he saw two peaks towering up above the layer of clouds to a height of 9,500 ft. His chart showed them as only 7,000 ft. high, though a more minute examination of the chart afterwards showed an inconspicuous query mark after the figures. Maj. Brackley has added one more item to man's knowledge of the world in which we live.

Bangkok is a military aerodrome, and civil machines will not usually be allowed to use it, though the ban did not extend to this flight of the *Astraea*. The Bangkok aerodrome shortly afterwards became water-logged, and will be out of action until the end of the monsoon. Moreover, there is no road from the city to the aerodrome, only a railway, and arrangements have to be made for trains to go out. The civil airport for Bangkok is to be at Hua Hin, 100 miles to the south, but with a rail connection to the capital. The K.I.M. use an aerodrome at Prachuab Giri Khan, 160 miles from Bangkok. Another aerodrome is also being made at Bandon, further south on the eastern coast of the peninsula, but it, too, is not yet ready.

Maj. Brackley flew on to Alor Star, in the Malay State of Kedah. It has a bad aerodrome, and the weather was



THE NATURALISED INDIAN: The Armstrong-Whitworth airliner *Arethusa*, now operated over the Indian section by Indian Transcontinental Airways.

Some British Triumphs with NAPIER Aero Engines

1918 A Napier-engined D.H. aeroplane climbed to a height of 30,500 ft. in 66 min., the greatest height at this date reached by an aeroplane.

1919 A Napier engined D.H. aeroplane won the Aerial Derby. Speed, 129.3 m.p.h.

1921 A Napier engined Gloster aeroplane won the Aerial Derby. Speed, 163.4 m.p.h.

1922 A Napier-engined Supermarine flying boat regained the Schneider Trophy for Great Britain at a speed of 149 m.p.h.

1923 A Napier-engined Gloster aeroplane won the Aerial Derby. Speed, 192.4 m.p.h.

1926 The first non-stop crossing of South Atlantic Ocean carried out by Commandante Franco flying a Dornier flying boat with two Napier engines.

1927 Schneider Trophy regained for Great Britain by a Supermarine-Napier seaplane flown by Ft.-Lieut. S. N. Webster, A.F.C. Speed, 281.669 m.p.h. Two machines completed the course—both fitted with Napier engines.

1928 The greatest formation flight ever carried out was made with four Supermarine-Napier Southampton flying boats, each fitted with two Napier engines. The machines flew from England to Australia, round Australia, and back to Singapore, covering 180,800 engine miles without mechanical trouble.

1929 The first non-stop flight from England to India was carried out with a Fairey monoplane fitted with Napier engine. 4,130 miles in 50 hr. 38 min.

1930 For the fifth successive year Napier engines were selected by the Royal Air Force for their annual Service flight from Cairo to Cape Town and back. As on previous flights, no mechanical trouble was experienced.

1931 The first and only non-stop flight from England to Egypt was carried out with a Fairey monoplane fitted with Napier engine. 2,857 miles in 30 hr.

1932 Captain Sir Malcolm Campbell set up a World's Land Speed Record of 253.968 m.p.h. with his Napier-engined "Bluebird" car.

1932 Fourteen officers and 534 men were transported from Ismalia to Iraq and back—a distance of 1,728 miles over nearly waterless desert. The aircraft used were Vickers "Victoria" troop carriers, each fitted with two Napier Lion engines.

1933

Squadron-Leader O. R. Gayford, D.F.C., A.F.C., and Flight-Lieut. G. E. Nicholetts, A.F.C., by flying a Fairey (Napier) monoplane from Cranwell, England to Walvis Bay, South-West Africa, set up a World's long distance non-stop flight record—a distance of 5,309 miles covered in 57 hr. 25 min.

New types of Napier Engines now being developed give promise of an improved performance which will enhance this record.

NAPIER

ENGINES

D. NAPIER & SON, LTD., ACTON, LONDON, W.3

Save time by using the Air Mail.

Hoch die Kadetten

(Wings over Heston)

LAST MONTH the Heston school machines covered

46,000 miles

or an average of one hundred and twenty hours per machine. This is plenty, but wait just one moment. The previous record was only fifty-seven hours per machine. A hundred per cent. increase.

So what?

Well, the weather was pretty good, certainly. And July is always a busy month. And things are a little brighter in the city, they say. But much of it, we are certain, is due to our new training machines. They're exceptional and whether you are just a beginner or whether you come for advanced dual—blind flying or aerobatics—you'll be delighted. There's a Rolls-Royce feeling about them that counts even more in the air than on the road. They weren't cheap, but after this record month we know that we did well to have them. No increase in our rates, either. 4 guineas an hour inclusive of navigation instruction. Average dual required for "A" licence, only 7 hours.

Our publications "Winged Wisdom," "Why on Earth" and "Weft Snarl" are sitting waiting for you in envelopes. Your name on a postcard will bring them to you.



AIRWORK LIMITED, Heston Airport. Branches at Bristol and Manchester.

Kindly mention "Flight" when corresponding with advertisers,

fairly bad on the flight there. From there on to Malacca was also a rather bad trip, but the weather got fine for the stage on to Singapore. There is no certainty about monsoon weather. A stage may be good one day and bad on another.

From Singapore on, the *Astraea* followed the K.L.M. route, and the crew were received everywhere with cordial hospitality by the officials of the Dutch line, many of whom were already well known to Major Brackley. Crossing the Timor sea the *Astraea* met head winds of over 30 m.p.h., which were much stronger than had been foretold, and after flying for 5½ hours at 400 feet, Major Brackley asked for information about landing at the island of Bathurst. Learning that the aerodrome there was satisfactory, he altered course, and landed at Bathurst after 6¼ hours' flying, and re-fuelled there. He then flew on to Darwin.

The *Astraea* followed the Qantas route through Cloncurry and Longreach to Brisbane. Then it flew down the coast to Sydney, then to Canberra, the capital, and then to Melbourne. On this last flight the machine found heavy clouds over the hills, but she climbed above them and flew by instruments and wireless without difficulty. Australian companies have found these hills a very nasty proposition, probably because when pilots have not very adequate wireless equipment they naturally try to keep below the clouds and dodge through the hills. The well-equipped *Astraea* solved the difficulty by climbing above the clouds.

Everywhere in Australia the *Astraea* met with great

enthusiasm, for such a powerful machine had never before been seen in Australia. The visit must have done much good in popularising the idea of letting a company formed by a combination of Imperial Airways and Qantas operate the route from Singapore to South-Eastern Australia. The terminal city has not yet been finally decided. At one time the Australian authorities selected Cootamundra, probably because of the difficulty of the hills. Now it is uncertain whether the trunk line will end at Canberra or elsewhere.

Major Brackley says that there must be a great development of meteorology all the way along the route east of Karachi. He spoke with most approval of the weather-reporting in Burma. When crossing the Timor Sea he had no knowledge at all of conditions in the upper air. In India meteorological activities were cut down during the slump, and must be improved again. He considers that there is also room for improvement in the Indian superintendents of aerodromes. One said that he was too busy to give him a weather forecast! Another insisted on trying to send up a weather forecast when Major Brackley was using his directional wireless, and did not want a forecast. One object of this flight was to discover what needs to be improved. This flight of the *Astraea* promises to bring Australia into closer touch with us very soon. If we start by getting a letter to Melbourne in 16 days that will be no more than it took to get a letter to Calcutta 10 years ago. Once the line gets into working order, it should soon be possible to reduce the time of transport.

Recent French Commercial Aircraft

SEVERAL new types of aircraft have been, or are being, produced by the various French aircraft constructors for use on commercial air services. The Farman "220," a four-engined (600 h.p. Hispano-Suiza) heavy-freight carrier, recently passed its tests at Villacoublay. It has a maximum speed of 230 k.p.h. (144 m.p.h.), and a ceiling of 6,000 m. (19,685 ft.). Another Farman, the "221," which is probably completed by now, also has four engines—Gnome-Rhône "K.14," geared and supercharged. The huge Latécoère "300," four-engined (650-h.p. Hispano-Suiza) monoplane flying boat (described in FLIGHT for January 1, 1932), which, it will be remembered, sank at its moorings shortly after being completed, is about to make its reappearance. Originally intended for operation by the late Aéropostale Co. on the Africa-South America service, the new—and, we believe, somewhat modified—"Lat. 300" will shortly make its first crossing of the South Atlantic with a Service crew on board. A second Wibault-Penhoët "282T-12" machine (3 Gnome-Rhône "K-7") was recently delivered to the late Air Orient Co. This was the seventh Wibault produced, and the eighth is due to be delivered to the Air Union segment of the "Combine" this month (Air Union already possessed two). Other machines expected to be seen on active service comprise:—three "Breguet" 3-engined transports (Gnome "K-7"), a similar type, with three 575-h.p. Hispano-Suiza air-cooled engines. The Dewoitine "Colonial D-43"—which is reported to have a maximum speed range of 230 k.p.h. (143 m.p.h.) to 107 k.p.h. (66.5 m.p.h.), a climb of 6,000 m. (19,685 ft.) in 39 min., and a range of 1,100 km. (683 miles); it has three 300-h.p. Lorraine Algot engines. The Dewoitine "Commercial D-332" (described elsewhere in this issue), a highly streamlined monoplane developed from the "D.33" *Trait d'Union*, equipped with three 575 h.p. Hispano-Suiza "9-V" engines, and of all-metal construction; it carries eight passengers and a crew of four, and is intended for the France-Indo China service. Subsequent models of this type will be fitted with retractable undercarriages. The Bloch "Colonial 120," fitted with three 300-h.p. Lorraine Algot engines and having a maximum speed of 225 k.p.h. (141 m.p.h.). The Romano three-engined "Colonial," which recently went through its climbing tests at Villacoublay. Finally the Wibault-Penhoët Works are at work on a new 24-seater for the Paris-London and Paris-Berlin lines.

Air Traffic at Prague

PASSENGERS arriving at Prague Aerodrome by air in 1932 numbered 2,367 and the departures 2,387. The total distance flown on the services of which Prague is a port of call was 1,265,021 kilometres, and the number of passengers carried 11,065. Mails carried to and from Prague

totalled 5,457 kilograms, and transit mails 18,757 kilograms. Goods conveyed amounted to 202,883 kilograms and those in transit 181,873 kilograms. The corresponding figures for luggage were 64,366 and 73,868 kilograms respectively. No accidents occurred during the year, and only six emergency landings were made, four for engine defect and two for atmospheric causes.

Sabena Optional Halts

UNTIL September 3 next machines on the Sabena London-Brussels-Cologne line will stop on request at Liège and Ostend.

Indian Air Service

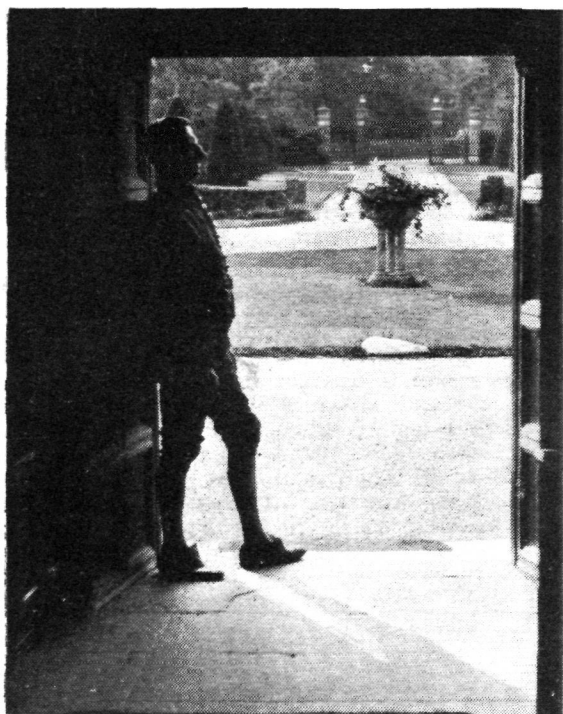
UP to date the Tata Air Service between Karachi and Madras has 100 per cent. record for punctual flying to its own schedule. The departure from Karachi has sometimes been delayed by the late arrival of air mail from Europe, but it has never exceeded the scheduled number of hours for its own journey from Karachi to Madras and *vice versa*. Its mail load is increasing steadily, and is expected to improve still more with the abolition of the two annas surcharge on the inauguration of the trans-Indian route.

The Delhi Flying Club's operation of the Karachi-Delhi air mail service terminated with the inauguration of the trans-Indian service. The Delhi service was started in January, 1932, and during 18 months of operation the hours flown have totalled 1,310 hours, equivalent to a mileage of approximately 110,000, while the weight of mail carried in 78 Westbound and 77 Eastbound trips has amounted to 15,860 lb. On 78 Westbound trips the air mail connection was missed on only four occasions, while on 77 Eastbound trips the machine only once failed to accomplish the journey in the scheduled time. Throughout the whole operation of the service the pilot of the air mail machine, with the exception of two trips only, has been Mr. P. D. Sharma, a "B" pilot trained *ab initio* by the Club. In handing over the operation of the air mail service to the long-awaited "big machine" service that was started to be operated jointly by Imperial Airways and Indian Transcontinental Airways, the Delhi Flying Club can look back with honourable pride on their achievement during the past year and a-half.

Extension of Air Mail Money Order Service

THE Postmaster-General announces that the Air Mail Money Order service has now been extended to Kenya, Uganda, Tanganyika Territory, Palestine and Transjordan. In the case of an order for Transjordan, particulars are advised by air mail to Jerusalem and re-advised thence by ordinary mail. In addition to poundage at the ordinary rate for Imperial and foreign money orders, a special air mail money order fee of 6d. is payable on each order for Kenya, Uganda and Tanganyika Territory, and 2d. on each order for Palestine and Transjordan, irrespective of the amount.

TO HAVE AN AERODROME : Great Fosters, at Egham, Surrey, the one-time hunting box of Queen Elizabeth, is now an hotel, with very charming old-world gardens.



GOOD ACCOMMODATION FOR AVIATORS!

By H. A. J. Lamb

IT was while passing through Kent that I saw from the window of my railway compartment a small cottage in a garden, which adjoined a field with low-cut hedges. On a board, painted in irregular capitals, were the words: "Landing Ground for Light Plains." The meaning was clear in spite of the spelling, and I felt it marked the coming of the new age!

We know of countless places where cyclists and motorists can obtain good accommodation, and lately there have been efforts to attract the hiker, but the aviator has not yet been catered for. Consequently we may expect that the numerous clubs formed for the private owner will welcome news of steps being taken in this direction.

There are, of course, many difficulties which confront local authorities or hotel managers, if they are to offer hospitality to visitors "out of the blue," but I hear of one hotel, with associations dating back to Shakespeare's day and incongruous as it may seem, is likely to provide landing space and good "garage" at no very distant date.

What would Queen Elizabeth think if she heard that her one-time hunting box near Egham hoped to provide for the air-minded! One can visualise the romance of this. Heston Air Park is not quite near enough to step out of one's 'plane and drop in for a cup of tea, yet it will only be a few minutes hop to visit this historic mansion. A very fine example of an old moated country house, it will form an unusual novelty—the twentieth century birdman 'planing down to a pleasure of falconry in Tudor days. Where ancient yew hedges flank a doorway bearing the date E.R. 1578, and glimpses of the past are reflected in the costumes of the staff.

Picture a landing near an old-world garden, dating from Saxon times, with herbaceous borders and pergolas forming a background to the sundial erected by Sir Francis Drake, and where a niche in the wall was used as a resting place for his stoup of ale during many a hotly contested game of bowls! Surely, too, one can surmise that the stone paving brought from the house of Nell Gwynne at Brentford, which often echoed to the hoofs of Charles II's horse, never expected to be trodden by the feet of those to whom the air provides new means of transport?

Perhaps subconsciously dreaming of the future in an atmosphere of panelled walls and patterned ceiling, I remarked one feature which is perhaps prophetic, for just as bathers like insects were attracted by the amber beams of flood-lit bathing pool, so may "Moths" of the air be lured to land by the welcome glow of signal beacon.

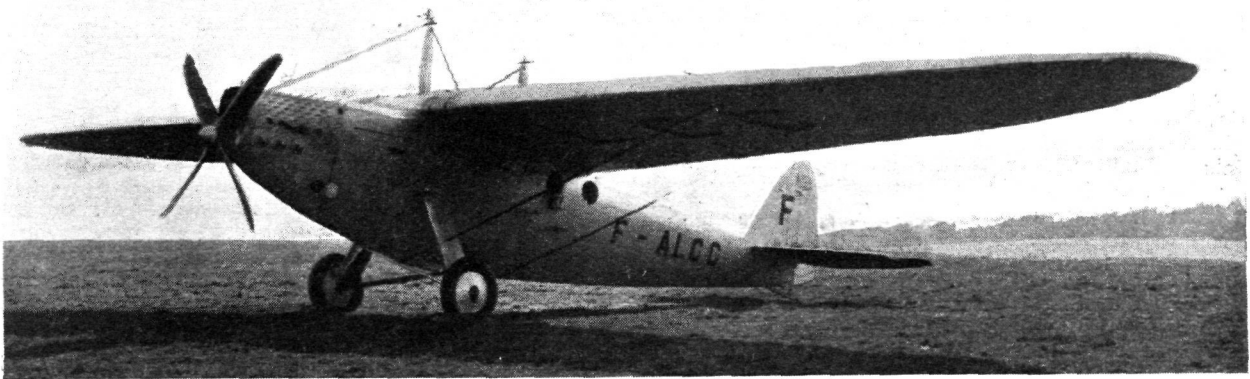
The popularity of flying will encourage enterprise in this direction, and need will arise for some sign visible to the aviator flying across England. Concealed lights pointing upwards may perhaps be favoured, but whatever is chosen I pray that whitewashed roof and enamelled sign will not be added to the heterogeneous medley that we on earth have to bear!



GREAT FOSTERS: Plans are in hand for the laying down of an aerodrome near this charming hotel at Egham, Surrey. If the aerodrome is established the hotel should soon become popular with all users of light aeroplanes.

FRANCE SECURES THE LONG-DISTANCE RECORD

Codos and Rossi do "Hop" of 5,600 Miles



THE RECORD-BREAKER : The Blériot-Zappata 110 (Hispano-Suiza engine) used by Codos and Rossi in their flight from New York to Rayak.

BY flying from Floyd Bennett Field, New York, to Rayak, Syria, without landing, the two French aviators, Codos and Rossi, have beaten the world's long-distance record established by Sqd. Ldr. Gayford and Flt. Lt. Nicholletts in February last. The British pilots flew, in a Fairey monoplane fitted with Napier "Lion" engine, from Cranwell, Lincolnshire, to Walvis Bay, South Africa, a distance officially homologated at 8,544 km. (5,309 miles). The exact distance with which Codos and Rossi will be credited is not yet known, but calculations based on the latitude and longitude of the New York and Rayak indicate that this distance is 5,630 miles. This figure is, however, subject to official confirmation, and is one worked out by FLIGHT's staff.

The machine used by Codos and Rossi was the Blériot 110 monoplane on which Rossi and Bossoutrot previously established world's records over closed circuits. The machine was sent to the United States in order to get the assistance of the prevailing westerly winds. It has been reported that at the start the machine carried approximately 1,700 gallons of Stanavo Aviation Fuel.

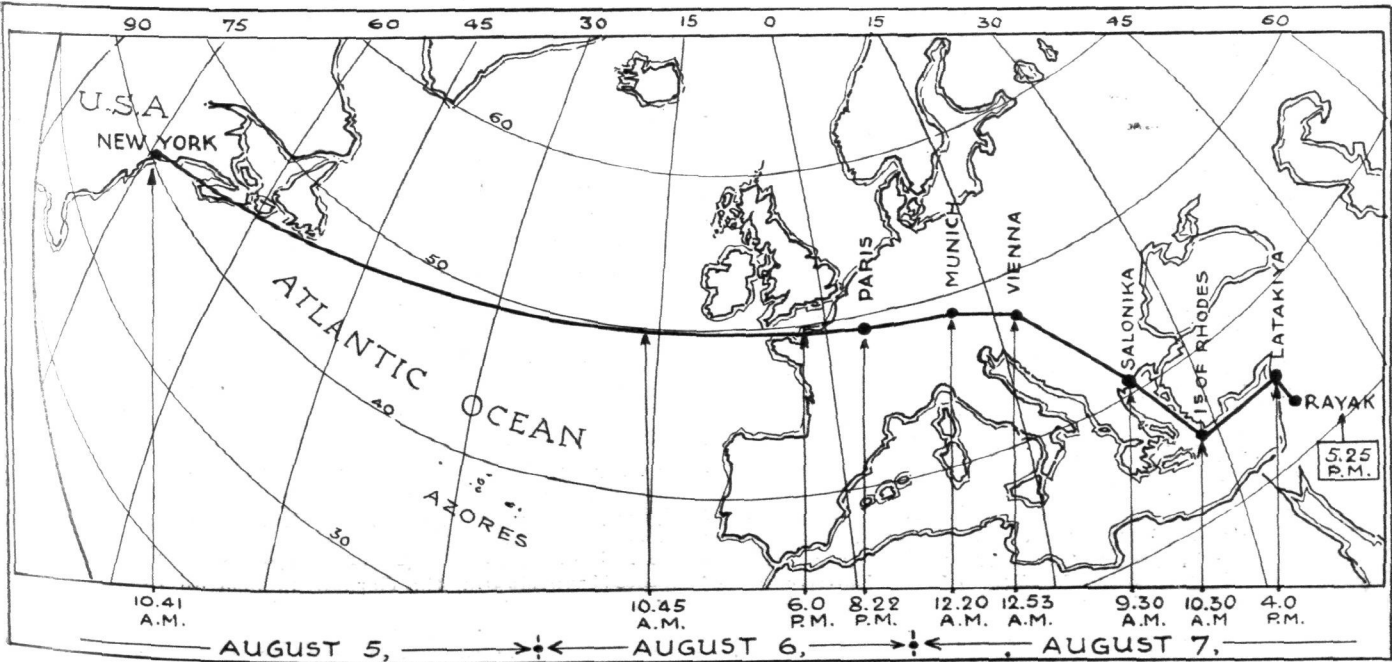
Leaving Floyd Bennett Field at 5.45 a.m. on August 5, the machine landed at Rayak at 4.25 G.M.T. on August 7, having been in the air for approximately 55 hours, and having covered in that time a distance of some 5,600 miles, an average speed of about 102 m.p.h.

The *Joseph le Brix*, as the Blériot machine is named, carried wireless, and was thus able to transmit messages

from time to time on its way across the Atlantic and Europe. At 11.15 p.m. on August 5 the machine sent out a message to say that a depression had been encountered beyond Halifax, Nova Scotia, and that the crew were battling with it. At 10 a.m. on Sunday, August 6, a brief message was sent out to say that they were having a very rough passage, and at 11.45 a.m. it was estimated that the Blériot was some 800 miles off the French coast. The French coast was crossed at Cherbourg at approximately 7 p.m., and at 8.20 the machine flew over Le Bourget, the Paris airport. The rest of the route lay via Munich, Vienna, Salonika and Latakia.

The Blériot monoplane was fitted with a Hispano-Suiza engine, and it is interesting to note that Britain can claim a share in the record by reason of the fact that a British firm's oil, Castrol to wit, was used. Also, those who are fond of arithmetic may care to work out how many sparks the 24 K.L.G. plugs made during the flight. Whatever the number was, in spite of the bad weather, the British plugs kept "plugging away," and, having fitted them, Codos and Rossi were able to "forget."

By their magnificent flight MM. Codos and Rossi win the French Air Ministry's prize of one million francs. Lord Londonderry, Secretary of State for Air, has sent to M. Pierre Cot, the French Air Minister, the following congratulatory message:—"Please convey my cordial congratulations to your brave and skilful fellow countrymen on establishing a new long-distance record."



5,600 MILES : Sketch map of the route followed by Codos and Rossi.

Airisms from the Four Winds

Italian Air Armada Nearing Home

AFTER arriving at Shoal Harbour, Newfoundland, on July 26—as reported last week—Gen. Balbo and his 24 Savoia Marchetti flying boats were held up by unfavourable weather until August 8. It had been originally intended that the return flight across the Atlantic should be via Valentia, Ireland, where a large detachment of personnel of Regia Aeronautica had made all arrangements for the Armada's arrival. Owing to the lateness in the season, however, Gen. Balbo decided not to take this route, but that via the Azores, and Lisbon. Thus, at 2.45 a.m. (Eastern Standard Time, or 8.45 a.m. B.S.T.) Gen. Balbo's machine took off from Shoal Harbour, followed at intervals by the remaining 23 machines—the last getting away by 3.9 a.m. After getting into formation all the flying boats made a final circle over Shoal Harbour and then set out on their 1,200-mile trip to the Azores. Just under eleven hours later nine machines of the Armada arrived at Horta and alighted safely, the other 15 machines, including Gen Balbo's, went on to Ponta Delgada, where they were safely moored by 8 p.m. (B.S.T.). At both places the inhabitants gave them an enthusiastic reception, shops, etc., being closed for the occasion. At Ponta Delgada Gen. Balbo and his airmen were entertained to a gala dinner by the Civil Governor. Meanwhile, rapid preparations, refuelling, etc., were put in hand in readiness for an early start next day for the trip to Lisbon.

The start from the Azores was marred by an accident to No. 13 machine, which overturned when taking off from Ponta Delgada. The four occupants were rescued and taken to hospital injured, and Lt. Squaglia died of his injuries. The remaining 23 machines got away successfully, in two sections, as they arrived, and completed the 780 miles to Lisbon without mishap.

Grierson's Atlantic Flight

MR. JOHN GRIERSON, who (as reported the other week) has planned an experimental flight along the Greenland air route to New York to test a method of wireless direction finding, left Brough on August 5 in his "Moth" seaplane and landed at Scapa Flow. Thorshavn, in the Faroe Islands, was reached at 1.45 p.m. next day, and Reykjavik, Iceland, on August 7.

Capt. Bremer's World's Tour

CAPT. BREMER arrived in Ottawa on July 13 on his way round the world in his 80-h.p. Siddeley "Genet Junkers Junior," having completed the eastern portion of his flight in the following stages:—Helsingfors (depart May 11)—Berlin—Budapest—Istanbul—Aleppo—Baghdad—Bushire—Jask—Karachi—Jodhpur—Allahabad—Calcutta—Rangoon—Bangkok—Hanoi—Hong Kong—Shanghai—Keijo (Korea)—Tokio. The journey from Berlin to Tokio was made in 18 days, which included a delay of one day at Istanbul and two days at Bangkok. Having been refused permission to fly up the coast of East Russia to Alaska by the Russian authorities Capt. Bremer's plan for a round the world flight was completely upset. He therefore decided not to fit his floats, which were waiting at Tokio, but ship his machine to San Francisco, the flight to Ottawa was made in stages along the route:—San Francisco—Los Angeles—Phoenix—El Paso—Kansas City—Chicago—Detroit—Buffalo—Ottawa. Capt. Bremer timed his start too early in the year, with the results that he ran into the monsoon in the east and encountered very terrible weather and serious dust storms in Persia. His flight covered a distance of approximately 16,000 miles, during which no trouble of any sort was experienced with his 80-h.p. Siddeley "Genet," which upon its arrival in Ottawa, was running perfectly. At San Francisco the only adjustments required were the grinding in of two valves and slight tappet and push rod adjustments. Capt. Bremer's cruising speed was between 85 and 90 m.p.h. and his petrol consumption 4 gallons per hour. He carried 12 hours' fuel supply and his schedule flights varied from 8-11 hours' flying over high mountains and long stretches of water. During his two days' stay in Ottawa Capt. Bremer was introduced to the Minister and Deputy Minister of the Department of National Defence, the Chief of Staff, Commissioner of the Royal Canadian Mounted Police and others. His stay in Canada coincided with the visit of the Italian Air Fleet. The size of his plane, its low power and the reliability of his 80-h.p. Siddeley "Genet" engine was commented on

in the press. Capt. Bremer left Ottawa on July 16, for Montreal, Washington and New York, where he will ship his machine to Liverpool. He proposes to fly from Liverpool to Coventry, where he will stay a day or so, and then to London, Paris and home through Europe back to Helsingfors.

An Atlantic Flight Fails

TWO Polish brothers, Benjamin and Joseph Adamowitz, left New York for Newfoundland, en route for Poland via the Atlantic, on August 8. Their venture met with an early check, however, for on landing at Harbour Grace they crashed, and were injured. An American passenger, Mr. Burgin, was unhurt. Their machine was the Bellanca monoplane in which the Danish airmen, Holvis and Hillig, crossed the Atlantic in 1931.

A Cape-London Attempt

A SWISS airman, M. Carl Nauer, left Cape Town on August 5 in a "Puss Moth" on an attempt to beat Mrs. Mollison's record for the Cape-London flight. He reached Mossamedes the following afternoon and left again shortly after, but at the time of writing no further news of his progress has been received.

American Stratospherical Flight Fails

COM. T. G. W. SETTLE, U.S. Navy, ascended from the grounds of the Chicago, Century of Progress Fair at 9.05 a.m. on August 5. He only reached an altitude of some 5,000 ft., as while manipulating the release valve this stuck open and the balloon came down at once. Com. Settle was unhurt, and neither the balloon nor his instruments were damaged.

The Dublin Air Pageant

OPENING the Irish Aviation Day pageant in the Phoenix Park, Dublin, on Saturday, August 5, Mr. Sean Lemass, Free State Minister for Industry and Commerce, said that the organisation of air lines between the cities and towns of Ireland was an immediate task, in the performance of which he could undertake, on behalf of the Government, that every assistance and facility would be provided. The development of air ports to attract private pilots, he continued, was a matter mainly for local authorities but he could also, in this matter, promise full government assistance. A number of aircraft from Midland and Scottish Air Ferries took part in the display, during which two members of the I.F.S. Army Air Corps lost their lives. While taking part in a mock aerial fight a Vickers "Vespa" army co-operation aircraft of the Free State Army Air Corps spun into the ground from a height of about five hundred feet, causing the death of its pilot, Capt. Oscar Heron, and seriously injuring his passenger, Private Richard Tobin—an air gunner—who died in hospital on the following day. The machine was "attacked" by three Avro "Cadet" aeroplanes, two of which Capt. Heron had driven off in the course of the combat, when his aircraft was seen to go into a spin from which it did not recover and crashed in front of the enclosure where the pilot's wife and more than twelve thousand spectators were seated. Earlier during the display, while taking part in an international relay race, an Avro "Cadet" (flown by Miss Winifred Drinkwater, of Midland & Scottish Air Ferries) nosed over when landing. Miss Drinkwater was uninjured.

Korean Airwoman Killed

KEIGEN BOKU, the 28-year-old Korean airwoman, was killed near Taga while making a flight from Tokio to Manchukuo. She left Tokio on August 7.

Aircraft Models at Helsingfors

PART of the British exhibit at the British Week in Finland, to which the Prince of Wales and the President of Finland have given their patronage, will be some 60 to 70 models of various types of British aeroplanes which illustrate the history of British aircraft design.

The Grade Aero Engine

HERR GRADE, the German pioneer aircraft constructor, has produced a new aero engine for light aeroplanes. Known as the "Igel," it is a 4-cyl. in line two-stroke of 30 h.p., mainly constructed of the new light alloy, "Silumin Gamma," and has recently completed a 20-hour bench test.

U.S.A. TO SYRIA

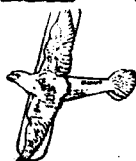
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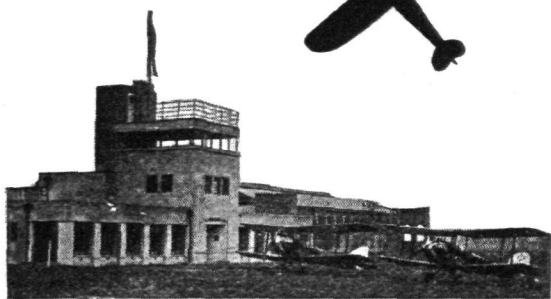
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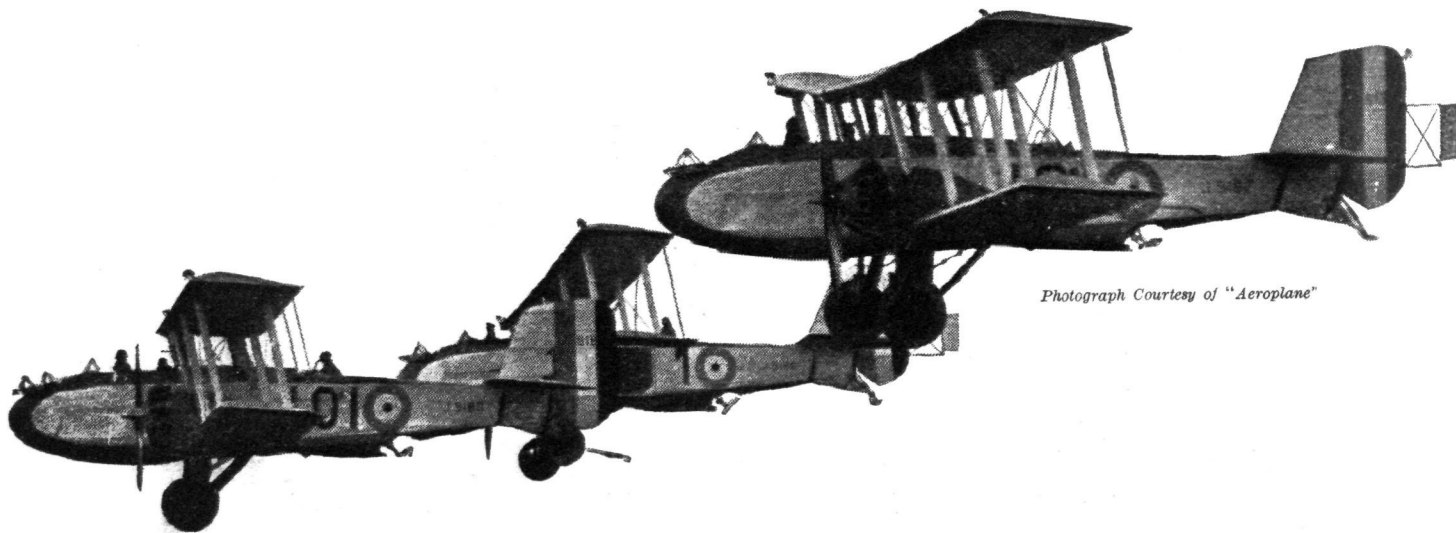
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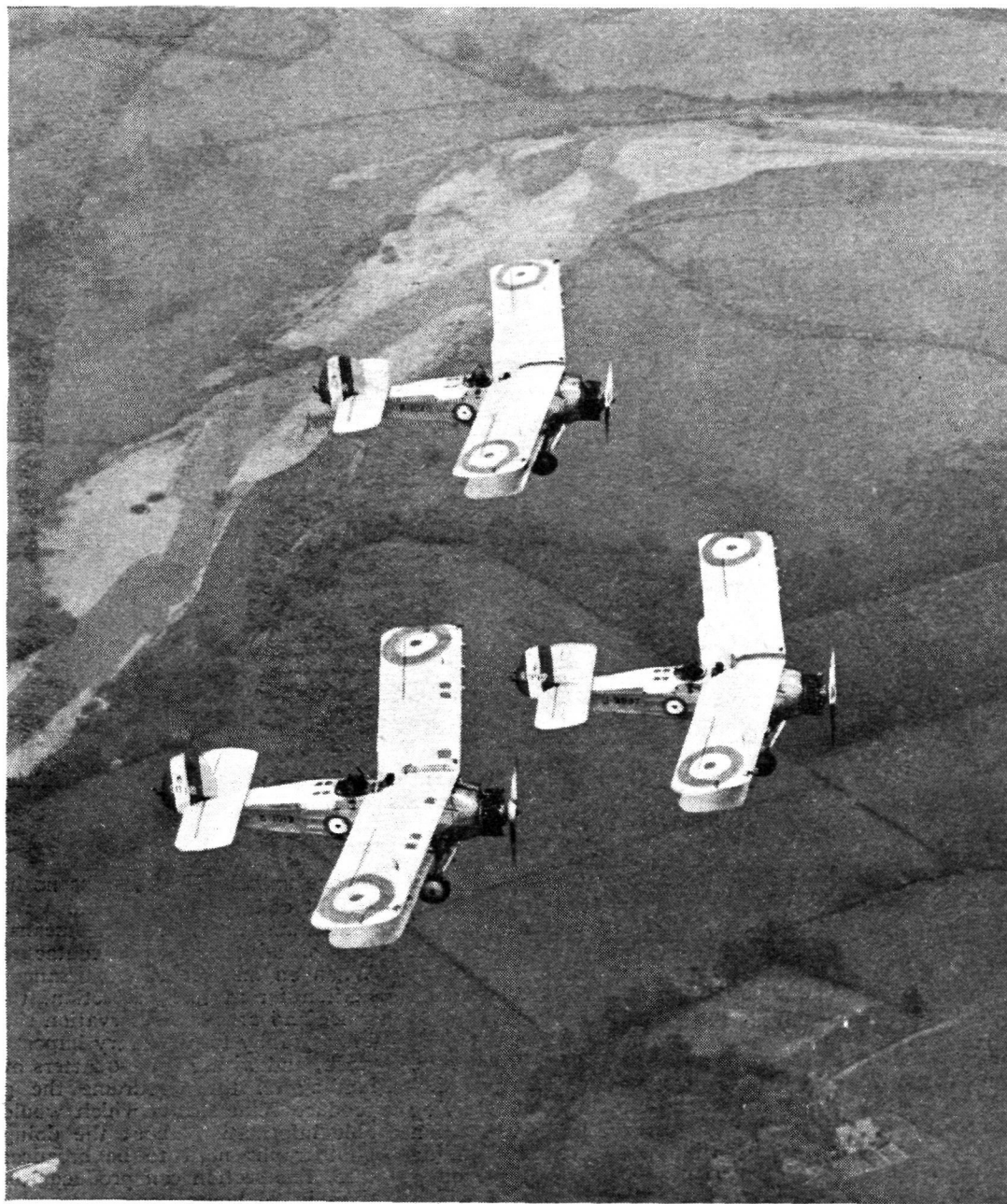
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ON MEDIUM PATROL:
A flight of No. 26
(Army - Co-operation)
Squadron over the
Yorkshire Moors.
(FLIGHT Photo.)



NO. 26 (ARMY CO-OPERATION) SQUADRON

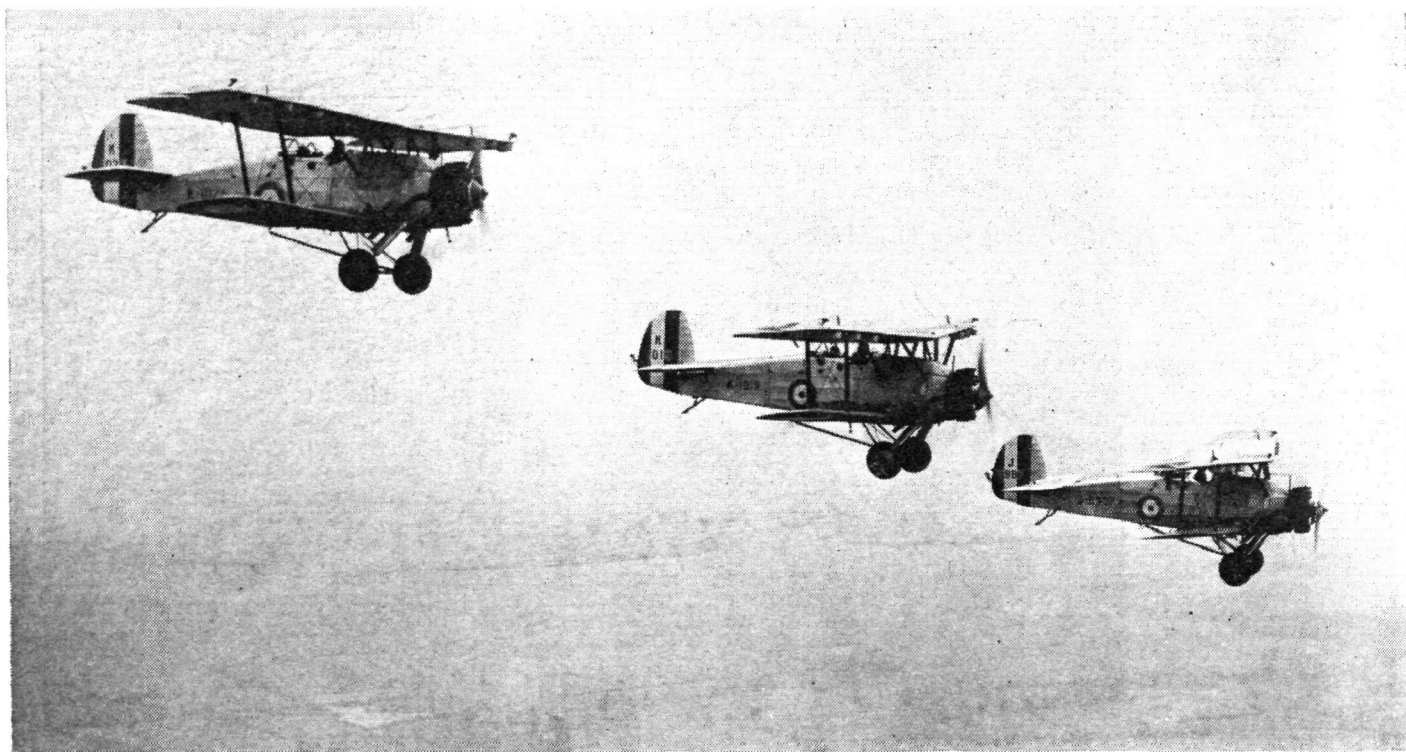
By MAJOR F. A. de V. ROBERTSON, V.D.



By the side of the Great North Road as it crosses Yorkshire lies Catterick aerodrome. It is a junction of air routes, though this is not commonly known outside the Royal Air Force. Catterick is the most northerly aerodrome occupied by a regular squadron in England. There are several Auxiliary Air Force Squadrons between the Humber and the Forth, but north of Catterick there is no regular squadron until one comes to Donibristle. Consequently Catterick makes a convenient halfway house for Service aeroplanes flying northwards. Catterick is not unfamiliar with the appearance of Prime Ministers and Secretaries of State bound by air for Scotland or Northern Ireland.

Apart from Station Headquarters, the chief inhabitants of Catterick are No. 26 (Army Co-operation) Squadron. They have been there since October, 1927, when it reformed after a nine years' period of disbandment when its war services had been finished. Incidentally, the squadron was disbanded in July, 1918, before the Armistice, but of its war history more anon. The present equipment of the squadron is the Armstrong-Whitworth "Atlas" with

Armstrong-Siddeley "Jaguar," mark 4C., which develops some 450 h.p. The squadron is looking forward to receiving the Hawker "Audax" with Rolls-Royce "Kestrel" engine before very long. Being the only army co-operation squadron in the North, No. 26 has to work over a wide military area. In England this one squadron has to supply aircraft to work with the Northern Command, which includes the 5th Division of regulars and the 50th (Northumbrian) and 49th (North Riding) Divisions of the Territorial Army, and also with the 46th (North Midland) Division, T.A. The squadron also works with the Scottish Command, in which there are the Highland and Lowland Areas of regular troops, comprising in all rather less than a division, and the 51st (Highland) and the 52nd (Lowland) Divisions of the Territorial Army. This seems quite enough to provide one R.A.F. squadron with a reasonably busy life. In case of war, the allotment of army co-operation squadrons would be not less than one per Army Division and one for each Corps Headquarters, and it may be doubted if even this would be enough when, as Kipling said, "the case began to spread."



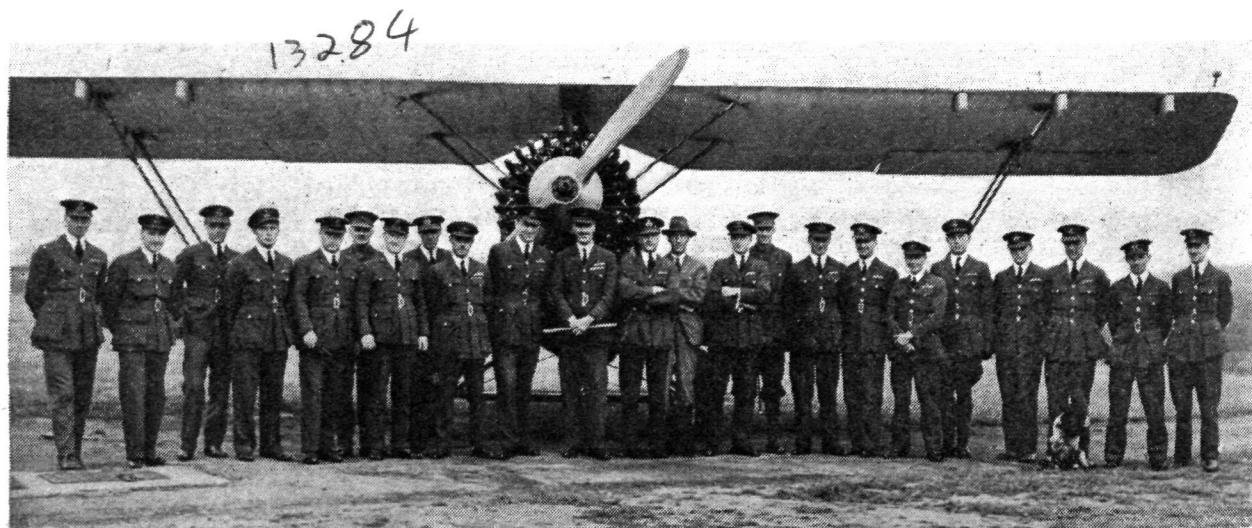
ECHELON ON THE RIGHT : Three A.W. "Atlas" machines with Armstrong-Siddeley "Jaguar" engines.
(FLIGHT Photo.)

The primary work of an army co-operation squadron is reconnaissance. That was the case in 1914, and it still holds good. Reconnaissance includes artillery observation, photography, and picking up and dropping messages. Supplies, of course, can also be dropped, but that is not reconnaissance. Communication with the artillery and with the staff is, naturally, by wireless, both W/T. and R/T., and the squadron personnel must be very expert in all that concerns the mysteries of wireless. For "close reconnaissance" of the enemy's fighting front, radio-telephony is used. Then, of course, sending and receiving sets have to be carried. When on artillery observation work the "Atlas" uses W/T. and only carries a sending set with a range of 12,000 yards. When engaged on a "medium" reconnaissance a W/T. set is carried which has a range of 100 miles. One of the novelties in the "Audax" to which the men of the squadron are eagerly looking forward is a set which will combine all functions

in one unit, and yet will be no heavier than the combined weight of a sending set and a receiving set.

Medium reconnaissance means observing the enemy's line of advance before contact is made by the armies. When on medium reconnaissance the machines fly in formation for mutual protection, though on close reconnaissance and artillery observation single machines work alone. Photography forms a very important part of reconnaissance work, and within three-quarters of an hour of the machines landing on the aerodrome the photographic section can produce some prints which would give the General valuable information about the doings of the enemy. When photographs need to be broadcast, as is very often the case, this section can produce 1,000 prints from 100 negatives in 24 hours.

Multitudinous as are the functions of an army co-operation squadron, it is not held that "ground-straffing" or attacking ground troops with machine guns and light



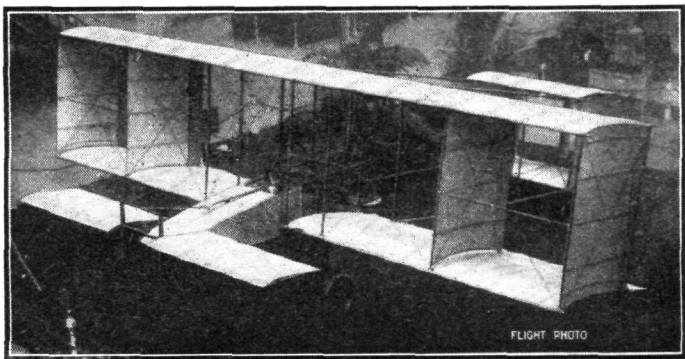
OFFICERS OF No. 26 (ARMY CO-OPERATION) SQUADRON : Names (left to right)—F/O's. C. Stephenson, G. J. Holland, A. M. Rogers, G. E. B. Stoney and R. L. M. Hall, Capt. J. Dean, R.A., Flt. Lt. G. O. Williams, M.O., F/O. L. O. Welch, Flt. Lts. M. J. DuCray and V. B. Bennett, Sqd. Ldr. G. R. A. Deacon, M.C., Flt. Lt. L. R. W. Tillard, Capt. L. Gough, Station Adj. Flt. Lt. R. C. Hancock, Lt. H. A. Bateson, P.O.W.V., F/Os. D. C. Harrison, J. S. Shakespeare, D. W. Morrish, P/Os. A. G. Powell and J. M. D. Ker, F/Os. A. H. Seymour-Lucas, L. V. Andrews and J. R. Fraser.
(FLIGHT Photo.)

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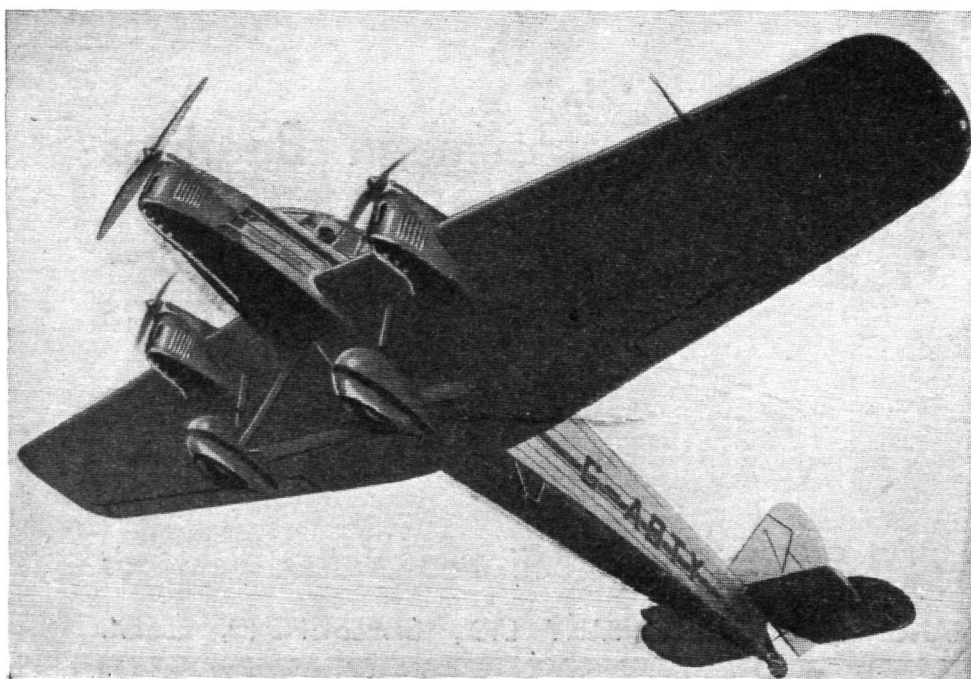
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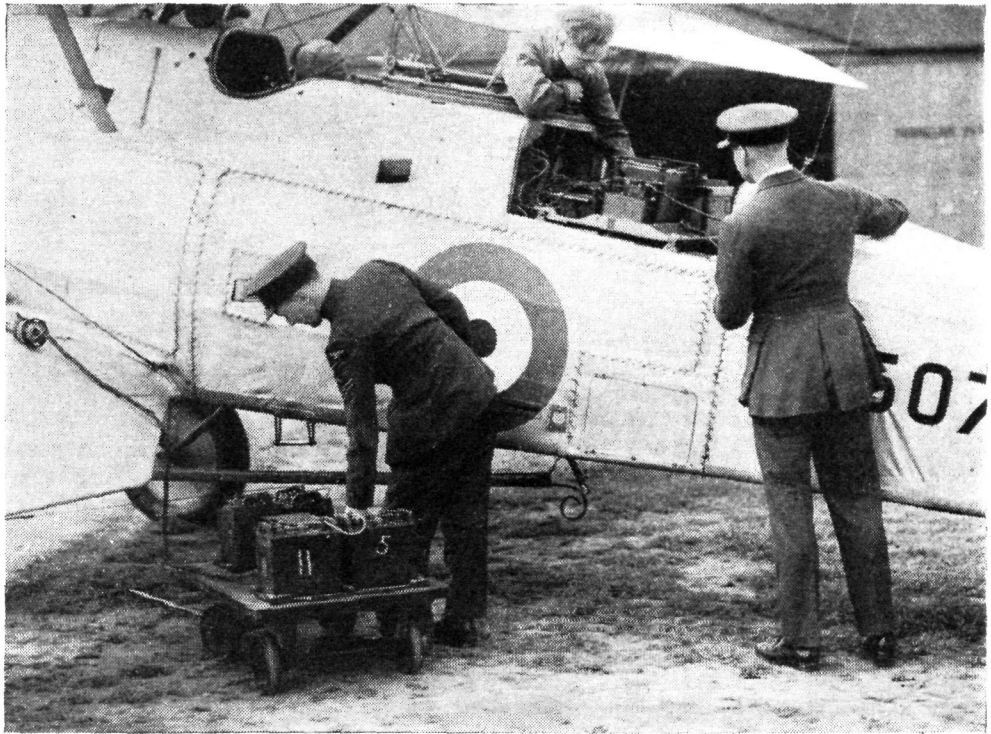
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(FLIGHT Photo.)



bombs, is a primary part of those duties. The army machines can do it, of course, but the idea is that this work ought rather to be carried out by fighters. Reconnaissance is of the utmost importance to an Army, and the machines which can bring in information or can put the guns on to a target ought not to waste their time and, incidentally, risk their own safety in detailed destruction of troops. Shrapnel is a far better man-killer than are machine guns fired from the air, and the aeroplanes which can direct the guns are too valuable to be risked on minor operations. At present No. 26 A.-C. Squadron works with seven divisions, and has 12 machines to do the work.

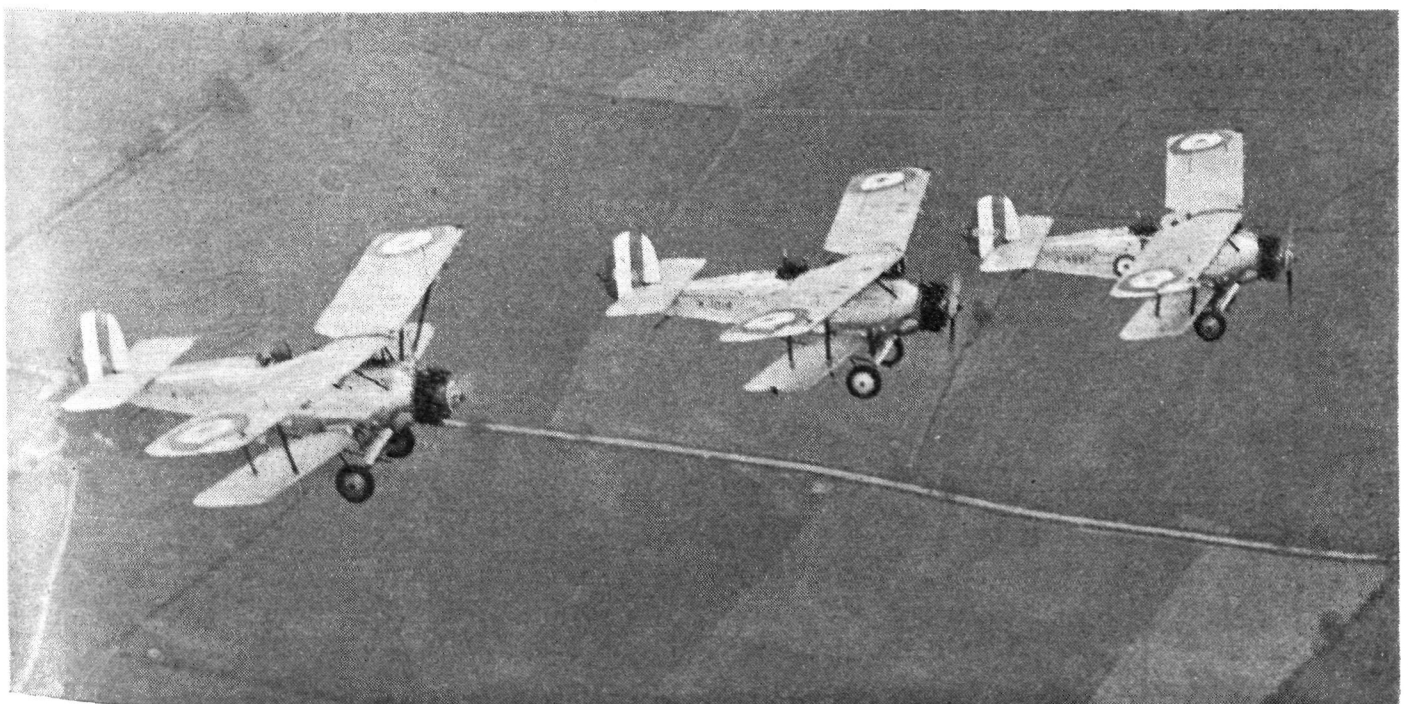
Of course, it would not have all that responsibility in war, provided that we were properly prepared for war before we became engaged in it. But if we were surprised, imagine the loss to those seven divisions if one machine of No. 26 Squadron were brought down by a lucky rifle shot from the ground! It might mean the failure of an important attack next day because the enemy's position had not been fully reconnoitred.

Night flying is another function which the army co-operation squadrons are preparing to carry out, although it is not yet fully developed. It is generally supposed that in future warfare movement of troops by day will be made very difficult through air observation. The natural result will be movements by night. The question now is, will that defeat the aeroplane? They, too, must be prepared to reconnoitre by night, and with the help of flares to see what the enemy would prefer to conceal.

The training year of No. 26 A.-C. Squadron is divided much as the training of other squadrons is arranged. In the spring the squadron goes to Catfoss Armament Training Camp to carry out its course in dropping bombs

and in firing live rounds at ground targets and drogues towed through the air. Individual training of pilots is carried out until the end of April; then comes flight training, and finally collective training with the Army troops. The squadron works with battalions during June and July, then with brigades, and finally with divisions. There is an Army camp near by at Catterick, and the officers of the squadron keep in close touch with Army officers. Two Army officers are attached to the squadron for liaison duties and live in the station.

Catterick station is a pleasant place with a beautiful stretch of turf in the centre of the buildings. The buildings themselves are in process of being modernised, and seven building contracts are now in operation. When all the work is done, Catterick will be even a more pleasant place to visit than it is now. One can imagine Cabinet Ministers dropping down there by dozens. Certainly FLIGHT can speak from experience in saying that a more hospitable lot of officers it would be difficult to find in any R.A.F. station.



ROAD PATROL: No. 26 (A.C.) Squadron patrolling along the old Roman road. (FLIGHT Photo.)

No. 26 Squadron in Africa

The history of No. 26 Squadron is unique. It was formed as a South African squadron for service in Africa, and to a great extent it was originally composed of South African personnel. It was none the less a unit of the Royal Flying Corps and afterwards of the Royal Air Force. Had the Union of South Africa desired to start an Air Force of its own at the conclusion of the war, it is probable that No. 26 would have been made over to that Government as a complete unit, instead of being brought back to England and disbanded there. Some years were to pass before the Union Government made a forward move in the matter of air defence, and still its Air Force is a branch of the Dominion Army, and not a separate and "Royal" Force as are the Air Forces of Australia and Canada. So No. 26 Squadron lost its connection with South Africa, and when it was re-formed it became just an ordinary unit of the Royal Air Force, though its badge of an antelope's head recalls its early associations.

Before the war a number of South African officers had been sent to England to be trained as pilots, and when war broke out they were attached to the four existing squadrons and sent to France. Then came a call for aircraft in the African campaigns. This was partly met by sending out some units of the Royal Naval Air Service, which took part in the destruction of the warship *Konigsberg* up the Rufiji River, and the initial operations in East Africa. But in November, 1914, the South Africans were withdrawn from France to form a special squadron for service in South Africa, under Maj. G. P. Wallace. On April 30, 1915, the nucleus of the squadron landed at Walvis Bay. Wallace (then a captain) had with him two officers, 34 mechanics, and five aeroplanes. Two of these were B.E.2C.'s and three were steel Henry Farmans with 140-h.p. Canton Unné engines. This early metal construction at once proved its value in a tropical climate, and the Canton Unné engines were very reliable. General Botha conducted a whirlwind campaign, and the air unit had no little difficulty in finding aerodromes rapidly enough to keep up with the advance of the troops. Still, very useful reconnaissances were carried out by Maj. Wallace, Lt. K. R. Van der Spuy, Capt. Creed, and others. The enemy surrendered on July 9.

On the conclusion of the campaign in South-West Africa, the air unit went to Capetown and was reorganised. The



personnel went to England in October, 1915, and at Netheravon they became No. 26 (South African) Squadron of the Royal Flying Corps. The connection with Africa was not severed, however, for at the end of January, 1916, the squadron was sent to Mombasa to take part in the East African campaign. Almost immediately after, Lt. Gen. Smuts took over the command of the forces in East Africa, and in his command was a strong contingent of troops raised in South Africa, so that No. 26 was obviously the right squadron to join the force. A unit of the Royal Naval Air Service was already with the force. The machines taken with them by No. 26 were eight B.E.2C.'s, and they also took with them lorries and tenders, spares, and the wherewithal to set up an aircraft park.

The first phase of the campaign was the expulsion of the German forces from Kenya territory, and then came the pursuit into German East Africa, now known as Tanganyika territory. Col. von Lettow-Vorbeck led his men with great ability and proved a worthy antagonist for General Smuts. The British forces continually drove the enemy back, but the latter escaped time and again from the attempts to surround them and force a capitulation. The Germans had no aircraft. To the British forces the observation work carried out by No. 26 Squadron and by the R.N.A.S. machines was extremely valuable. The airmen ran no risks from enemy aircraft, and it is pleasing to be able to record that at the end of the campaign their losses amounted to no more than two taken prisoners of war and three killed and seven injured in accidents. It would be quite wrong, however, to conclude from this that



HELPING THE INFANTRY : Two views of an A.W. "Atlas" picking up messages which the infantry attach to a cord stretched between two posts. (FLIGHT Photo.)

the campaign was just an enjoyable picnic for the squadron. In a war of rapid movement air units are perpetually harassed to find new aerodromes and move forward on to them. In such circumstances it is only with great difficulty that machines can be kept serviceable. In August, 1916, it is recorded that only three machines were fit to fly, all steel Henry Farmans. In May of that year the squadron had received a consignment of eight machines of this type with 140-h.p. Canton Unné engines, as they had proved in the South-West campaign that they were very reliable and suitable for work in the Tropics. All sorts of unexpected difficulties were encountered, and remedies had to be improvised on the spot. On the first arrival of the squadron with its eight B.E.'s, it was found that the propellers of the machines had not been sent on with the rest of the equipment. They had with them five other propellers not intended for use on the B.E.2C., and these had to be specially bored before they could be used. In June one of the B.E.'s crashed in thick bush, and both pilot and observer were killed. Sickness in the unhealthy parts of the country troubled both the Europeans and also the natives who did the rough work for the squadron. On one advance there was no medical officer with the column, and the officers had to do the best they could for the sick airmen. Between April, 1916, and April, 1917, there were 346 other ranks on the strength of the squadron, but on April 30, 1917, only 125 were fit for duty. Eight had died, 33 were in hospital, and 180 had been invalided out.

On one occasion petrol had to be brought by native

porters over a pass 6,000 ft. high. The porters would unscrew the caps of the eight-gallon drums, empty out some of the petrol, and when they had reached low ground again would fill up the tins with water. Consequently all the petrol had to be strained through chamois leather before it could be used. Another trouble was that the primers of the bombs which had been kept for some time in store deteriorated in the heat, and many bombs failed to explode. A mechanic found a method of treating them which made them serviceable again, but he was killed by an explosion, though not until he had put all the bombs in working order.

Forced landings caused few casualties, but often meant great sufferings from thirst and heat before rescue. Once Lt. Garrood spent four days wandering through the bush. His clothing was stolen by baboons while he was drying it, and he also reported an escape from a crocodile when swimming a river (he was a very fortunate man), and a night in which he was treed by a leopard. One aerodrome was called "Daniel's Den" because of the number of lions which could be heard round it. No casualties, however, were caused by wild beasts. They merely added spice to African life.

By November, 1917, the German forces were reduced to a remnant and were incapable of doing further harm. In January, 1918, No. 26 Squadron was sent from Dar-es-Salaam to Capetown, and finally reached Blandford in England, where it was disbanded in July, 1918. As stated above, it was re-formed at Catterick on October 11, 1927, under its present designation.

Royal Air Force Squadrons

Other descriptive articles concerning the work of various R.A.F. Squadrons, etc., have been published in FLIGHT as follow:—

H.M. Aircraft Carrier *Glorious*. May 16, 1930.
No. 4 (Army Co-operation), South Farnborough; No. 17 (Fighter), Upavon, and No. 33 (Bomber), Eastchurch. June 27, 1930.
No. 601 (County of London) (B.) Sq., A.A.F. (at Lympe). August 15, 1930.
No. 43 (Fighter) Sq. (Tangmere). September 19, 1930.
No. 2 (Army Co-operation) Sq. (Manston). December 19, 1930.
No. 101 (Bomber) Sq. (Andover). April 24, 1931.
Nos. 204 and 209 (Flying-Boat) Sq. (Mount Batten). June 12, 1931.
"1890-1912-1931." (An Outline of the Growth of the R.A.F.) June 26, 1931.
Cambridge University Air Sq. (at Old Sarum). July 10, 1931.
Central Flying School (Wittering). July 17, 1931.
Submarine Aircraft Carrier "M 2." July 31, 1931.
Oxford University Air Sq. (at Eastchurch). August 7, 1931.

No. 600 (City of London) (Bomber) Sq., A.A.F. (at Tangmere). August 21, 1931.
No. 605 (County of Warwick) (Bomber) Sq. (Cas. Bromwich). April 1, 1932.
No. 40 (Bomber) Sq. (Upper Heyford). May 13, 1932.
Nos. 7 and 58 (Bomber) Sq. (Worthy Down). June 10, 1932.
A visit to H.M.S. *Exeter* of 2nd Cruiser Squadron, Home Fleet. June 17, 1932.
Oxford University Air Sq. (Eastchurch). July 22, 1932.
Cambridge University Air Sq. (Netheravon). August 5, 1932.
No. 1 Air Defence Group (A.A.F. and Cadre Sqs.). August 12, 1932.
No. 100 (Bomber) Sq. (Donibristle). August 19, 1932.
Scotland's Auxiliaries; No. 602 (City of Glasgow) (Bomber) Sq. and No. 603 (City of Edinburgh) (Bomber) Sq. September 16, 1932.
London's Auxiliaries; Nos. 600, 601, and 604 B. Sq. October 20, 1932.
No. 25 (Fighter) Sq. (Hawkinge). December 8, 1932.
No. 19 (Fighter) Sq. Duxford. January 5, 1933.
Aircraft Carrier H.M.S. *Courageous*. January 12, 1933.
Le-on-Solent. February 9, 1933.
No. 23 (Fighter) Squadron. March 2, 1933.
Gosport. The Fleet Air Arm Base. March 30, 1933.
Larkhill. R.A.F. Balloon Centre. June 8, 1933.
The R.A.F. Staff College, Andover. July 20, 1933.
No. 99 (Bomber) Sq., Upper Heyford. August 3, 1933.

Lord Londonderry's Visits to Lympe and Thornaby

THE MARQUESS OF LONDONDERRY, Secretary of State for Air, flew in a Service aircraft from Hendon to Lympe on July 31 and paid an informal visit to No. 601 (County of London) (Bomber) Squadron of the Auxiliary Air Force, which is holding its annual camp at Lympe Aerodrome. This squadron, of which Sir Philip Sassoon is Hon. Air Commodore, is commanded by Sqd. Ldr. H. N. St. V. Norman. After lunching with the squadron, Lord Londonderry left by air for Hendon and returned to the Air Ministry. On August 1 Lord Londonderry flew from Hendon to Thornaby Aerodrome, Yorkshire, in order to preside at the meeting of the Territorial Army and Air Force Association of the County of Durham, which was held in the Officers' Mess of the 8th Battalion of the Durham Light Infantry at Marske Camp at 11.30 a.m. He was present with Gen. Sir William Thwaites, Director-General of the Territorial Army at a march past of units of the 151st (Durham Light Infantry) Brigade and later presided at the annual luncheon of the Association at the Zealand Hotel, Saltburn, at which Sir William Thwaites was the chief guest. After lunch Lord Londonderry returned to Thornaby Aerodrome and left by air for Aldergrove, N. Ireland, en route for Mt. Stewart, Newtownards, Co. Down, where he is spending his holiday with his family.

The Control of Private Flying

THE Air Ministry announces that Mr. W. A. Workman, F.I.A., General Manager of the Legal & General Assurance Society, and Chairman of the British Insurance Association, has accepted nomination as a member of the Committee recently appointed by the Secretary of State

for Air to review, under the Chairmanship of Lord Gorell, a number of important issues of policy affecting the future development of civil aviation in this country. As was announced in the House of Commons on July 24, Lord Londonderry has, in addition to their original reference, decided to remit to this Committee for examination the whole question of compulsory insurance against third party risks for civil aircraft.

Busk Studentship in Aeronautics

THE Trustees of this Studentship, founded in memory of Edward Teshmaker Busk, who lost his life in 1914 while flying an experimental aeroplane, have awarded the Studentship for the year 1933-34 to Leslie Howarth, B.A. (Cantab.), B.Sc. (Manch.), of Gonville and Caius College, Cambridge.

Air Touring

AIR touring from this country in privately owned aircraft has been steadily increasing during the past five years, and the International Aeronautical Federation has formed a special Committee, on which the Royal Aero Club is represented, with a view to standardising as far as possible the regulations by which aircraft are admitted into foreign countries, Customs formalities, etc. Lord Wakefield of Hythe has again shown his practical interest in advancing the cause of aviation by a donation of £1,500 to the Royal Aero Club to assist in this work.

B.G. Gliding and Soaring Competition

THE Council has decided to hold a two-day competition on October 7 and 8. It is hoped that a site at Malvern will be available, but a definite decision will be given as soon as possible. The competition has been arranged in the hope that better weather conditions will obtain than those existing at Huish.

Airport News

FROM HESTON

MARSHAL CHANG TSUI LIANG, flying from Hamble in an Avro 626 aeroplane, landed at Heston on August 4.

On August 3, 39 members of the Deutsche Verein, a social organisation of Germans living in London, attended their fortnightly dinner which was held at Heston. Among those present were the Chancellor of the German Embassy, Herr Achilles, Herr Van Scherpenberg, the German Air Attaché (whose father-in-law is Dr. Schachts, President of the German Reichsbank), and Capt. Von Salzmann (a member of the Heston Airport Club), who, besides being the writer of Richtofen's memoirs, was the first man to make the complete journey on horseback from Peking to Berlin. The menu naturally included sausages and sauerkraut.

Countess Resy de Baillet Latour made her first solo last week on a "Cadet" after 7 hr. dual instruction. Madame Neumegen, who came over from Belgium, was also a first soloist. Lady Londonderry is another keen pupil.

Last week 23 new pupils joined the school. The popu-

larity of the new "Cadet" is shown by the fact that during July an average of 120 hr. per machine (63 hr. up on the previous record) has been achieved.

On Sunday, July 30, 13 machines cleared Customs at Heston.

An aeroplane from the British Air Navigation Co. took a photographer to secure pictures of Miss Gleitz during her Channel swim. A regular customer of this firm is a crippled gentleman who travels by aeroplane because he says that he feels less sickness in the air. This week they flew him from Le Touquet and back again.

On Sunday night Birkett Air Service flew back from Paris with pictures of the finals of the Davis Cup. Maj. Digby, of this firm, flew to Scarborough and back on Monday in the roughest weather he has ever experienced. The wind in the Liverpool and Midland area over which he flew was officially reported to have reached a speed of 67 m.p.h. Capt. Birkett flew to Lille on Tuesday for Press pictures of the cotton factory fire.

Mr. Loel Guinness took delivery of his Bellanca machine at Heston this week.

A NEW SOARING WORLD RECORD

WITH a few sandwiches, a pound of apples, a bottle with cherry juice and half a pound or so of chocolate, young Kurt Schmidt settled down in his "B. Loerzer," a sailplane he had built together with his comrades in the sailflying camp of Korschenruhe, near the townlet of Brandenburg (only to be found on a few large-scale maps, south of Königsberg beyond the Polish Corridor), in the dunes on the shores of the Frische Haff, shortly after 7 o'clock in the morning of Thursday, August 3, and was let off at 7.25 on a flight that will go down in the annals of history as one of the most memorable achievements of motorless flights. For 36 hr. and 37 min. Schmidt soared day and night over a stretch of coast about two kilometres long, constantly under official control and with the necessary instruments on board to enable this new world record to be filed for international recognition. The weather was by no means so propitious as one would expect it to have been. What was at first a stiff northern breeze later became squally and eventually, as the wind gradually turned to blow from the west during the night from Thursday to Friday, even rain came on, so that more than once Schmidt thought he would have to land. But he braved the squalls and was in such splendid spirits that as soon as the weather became better in the course of the Friday he made all sorts of little pranks up in the air with his machine for the amusement of his friends on the ground and of spectators that had gathered.

Kurt Schmidt, who was born in 1906 at Strassburg, has practically all his life resided in East Prussia, and now is student of philology at the University of Königsberg. He has been a sailflying enthusiast for many years, having received his first course of instructions in the Korschenruher camp, which he followed up with further courses in the school of Wolf Hirth at Grunau. He has qualified for all sailflying certificates that can be procured, and has assiduously prepared himself for this world record flight, which has been his one great ambition so far. No one believed that it would be possible to beat the world record, standing at 21 hr. 34 min., held since December 18, 1931, by the American, W. A. Cocks, Junr., in Germany, as the weather conditions were considered too unpropitious. Schmidt's machine is an intermediary type between the old Zögling and the latest high efficiency machines, and it

has frequently been used for starting by motor planes. Schmidt carried through a large number of long duration flights with this machine, including night flights, and was once as long as seven hours in the air. He kept very fresh all these thirty-six hours and no trace of fatigue was evident when, having been commanded to come down shortly after 8 o'clock on Friday evening, he sprightly jumped out of his machine. Only once, after he had been in the air for thirty hours, did sleep threaten to overcome him. But he effectually warded it off and, in fact, greatly regretted being commanded to stop, as he felt he could have carried on some hours longer. That, however, would have jeopardised his success, as possibly he would have been forced down during the night some distance away and out of control. Schmidt could screw himself up to a height of 315 m. It is difficult to say exactly what distance he covered while in the air, as he kept closely within sight of the camp, where numerous fires were lit during the night and illuminated sheets were spread out to show him the direction the wind was blowing. Generally also vocal instructions could be given and received.

Schmidt naturally is being celebrated in Germany, and among the numerous telegrams of congratulations one of the first he received was one by the German Chancellor, Adolph Hitler, to whose S.A. troops he belongs.

The history of this record, now again in German hands, is interesting.

			Hours	Min.	Sec.
30.8. 1921, Klemperer ..	Germany ..	00	13	03	
13.9. 1921, Hart ..	Germany ..	00	21	37	
18.8. 1922, Martens ..	Germany ..	1	00	00	
19.8. 1922, Hentzen ..	Germany ..	2	00	00	
24.8. 1922, Hentzen ..	Germany ..	3	10	00	
21.1. 1923, Maneyrol ..	France ..	3	22	00	
22.1. 1923, Maneyrol ..	France ..	8	04	50.4	
11.5. 1924, Schulz ..	Germany ..	8	42	09	
26.7. 1925, Massaux ..	France ..	10	29	43.4	
2.10.1925, Schulz ..	Germany ..	12	06	22	
3.5. 1927, Schulz ..	Germany ..	14	07	00	
20.10.1929, Dinort ..	Germany ..	14	45	00	
18.12.1931, W. A. Cocks, jr.	U.S.A. ..	21	34	00	
4.8. 1933, Schmidt ..	Germany ..	36	37	00	

P. A. H.

Flying Boat Equipment

SIR PHILIP SASSOON, in the House of Commons, on Wednesday, July 26, informed Mr. O. E. Simmonds, that the Royal Air Force had no Flying boats in commission whose range with normal service load exceeds 1,500 miles;

that comparisons as to the preferences of different types of aircraft of various countries could not profitably be pursued by question and answer in the House; and that he was not prepared to say that he was satisfied with the present condition.

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1931 LAGONDA 2-str. Super-charged 4-str. Sports Tourer.

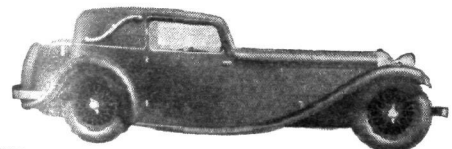
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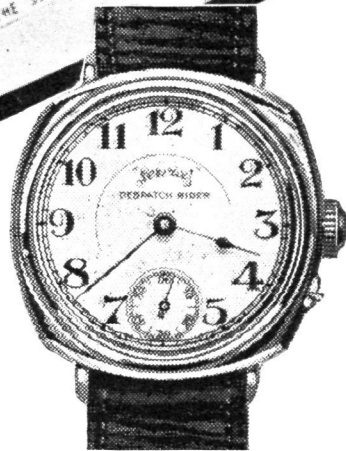
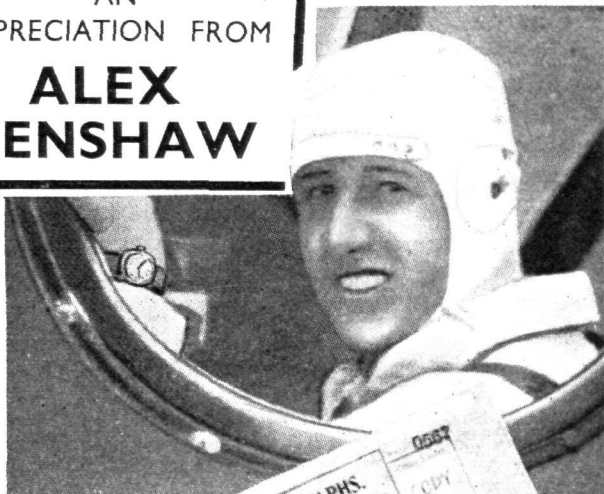


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Correspondence

The Editor does not hold himself responsible for opinions expressed by correspondents. The names and addresses of the writers, not necessarily for publication, must in all cases accompany letters intended for insertion in these columns.

A "HYMN OF HATE"

[2870] It is not our custom to take notice of anonymous letters, but last week we received one which is so amusing that we have not felt justified in withholding it from our readers. It arrived in an envelope bearing the Munich postmark, and the letter itself is headed "Landau, 23/7/33." The text is as follows:—

SIR,
I recently read an article in the "Flight" by the secretary of State for air Sir John Salmond that England was maintaining the Bombing aeroplanes to quell the unruly people in N.W. Frontier of India. Is the Secretary of State not ashamed to say so? He thinks it a great feat to bomb innocent, and unarmed people from the air. If you have the guts in you, you will let Germany rearm and then show your mettle against them. You boast so much of those "Atalanta" planes, but can you compare it with the latest Junkers 52/3 which have a velocity of 270 km/hr. You boast of Handley Page air liners but can you compare it with the Junkers 2500. You made so much of that rotten plane Boulton & Paul, but you must know how superior is the Heinkel "70." You boast so much of the Hawker "Furies," Fairey Fireflies but you know the superiority of the American planes of the Weddell-Williams & Boeing types with their 425 km/hour. You planned for 4 years to establish a long distance record with that Gloster Monoplane with the Napier Engine. You know the feat of the American post with the Lockheed Vega machine built in 1927 over the Atlantic. You made so much of the South Hampton flying boats, but you are astounded at the performance of latest Dornier Wal "33," which have a Velocity of 290 km/hour. you never knew of the Air tunnel expts, till it was started by Prof. Prandtl at Göttingen in 1906 and how he laid the foundation for the modern aerodynamics, that the surface layer of air in contact with the Wings are dragged with, and how to avoid the formation of eddies. You know the foremost position of Germany in commercial aeroplanes in spite of their economical difficulties. you know the recent achievement of Flight-Lt. Poltke and who flew from Berlin to Schaghai (10000 km) in 50 hours, and also how superior the F.K.L.M service to India. You must be ashamed of yourself to boast so much: You can publish this in the Flight

(AN ADMIRER OF GERMAN AVIATION)

[Our anonymous correspondent appears to have absorbed colloquial English rather well, and as that seems to be the style he prefers, we would say that if it is a question of "guts," and he considers himself well supplied with that commodity, he might give proof thereof, in a very mild way, by coming into the open and letting the world know who is our very "valiant" correspondent, instead of barking behind the smoke screen of anonymity. Our correspondent is evidently as hazy in his conception of the "innocent and unarmed" people on the N.W. Frontier as he is vague on the point of Great Britain's Air Minister. It is thus difficult to know whether he is referring to Lord Londonderry or actually to Sir John Salmond, the more so as neither has hitherto done us the honour of writing articles for FLIGHT. In any case, we can hardly be expected to know whether or not the "Secretary of State is ashamed to say so." He has no cause to be, certainly. Our bold correspondent seems to thirst for another scrap in the air. If he can find enough supporters, and can convince Hitler of the advisability of such an outlet for Germany's energies, we do not doubt that the R.A.F. will be *in situ*, complete with the necessary quantity of "guts."

Like our sabre-rattling (or should one say wing-flapping?) anonymous correspondent, we are admirers of German aviation, but we also happen to be even greater admirers



The Royal Tournament

THE profits from the Royal Tournament this year amounted to £14,000, which is to be distributed among the Service charities. The amount is less than last year's profit by £5,000.

The Parliamentary Air Committee

THE Committee met at the House of Commons on Monday, July 24, when Lord Londonderry, the Secretary of State for Air, gave a most valuable address on the present position of Air Disarmament at Geneva. He reminded the Committee that of the 60 or more States represented at Geneva, only a dozen had air forces, and thus air disarmament was a very popular theme with those who had nothing to sacrifice thereby. It was quite untrue to say that the British reservation on police bombing had influenced in any way the attitude which other Powers were adopting. At the present moment nothing more had been done than for each State to place on record its general attitude to the British Draft Convention. The

of British aviation—perhaps in the "a poor thing but mine own" way—and on the subject of "boasting," our correspondent will learn, if he perseveres in reading FLIGHT, that such things are simply "not done" among gentlemen. That, of course, he cannot be expected as yet to know.

With typical German love of statistics, our "gallant" correspondent seems to have been hypnotised by reading speed figures. The only superiority which it occurs to him to quote for German machines is related to speed. Well, that is a real good thing to possess, but if he knew but a very little of the subject, "Herr Admirer" would know that a few other qualities are worth having. And, anyway, if it be speed he is measuring everything by, what about his having a little jaunt in the Supermarine S.6B at well over 400 m.p.h.!

"That rotten plane Boulton & Paul" is, presumably, meant to refer to the Mail Carrier. Exactly how our correspondent knows that this machine is "rotten" is not very easy to realise, as it has not yet been put into service. But he might try to learn, if he is capable of learning, that the B. & P. Mail Carrier has been designed to carry, week in and week out, 1,000 lb. of mails for a distance of 1,000 miles without risk of forced landings. Boulton & Paul produced the type of machine which the British authorities wanted. Heinkel has produced the type the German authorities wanted. The two did not happen to want the same thing, but that is scarcely the fault of either Boulton & Paul or Heinkel.

Our correspondent argues with all the vehemence and conviction born of ignorance about the Hawker "Fury" and Fairey "Firefly," comparing them with the American Wedell-Williams, which is a racing machine and not a military type. His reference to the Boeing is too vague to be of any use, as the particular type he has in mind is not mentioned.

We sympathise with our correspondent when he sneeringly remarks that we planned for four years to establish a long-distance record with the Gloster monoplane. It must indeed seem pitiful to him that after four years of planning for the Gloster, it was the Fairey monoplane which established the record. But we did capture it! Yes, we have heard of the feat of the "American post," but we did not until now realise that his Lockheed Vega was "built in 1927 over the Atlantic."

Considering all the hard work they have done, work of which you, Herr "Admirer of German Aviation," cannot possibly be aware, we have made very little of our Southampton flying-boats. And who says we are "astounded at the performance of the latest Dornier 'Wal 33'?" We do not recollect having said so.

We yield to no one in our admiration of Dr. Prandtl of Göttingen, but has Herr Admirer ever heard of Prof. Lanchester? If Herr Admirer can get hold of certain back numbers of FLIGHT, he will there find repeatedly expressions of our admiration of the K.L.M. service to Batavia.—ED.]

second reading of the draft, which would take place later this year, would inaugurate the real business side of the matter. A very large number of members was present. The Committee also met on Monday, July 17, and made arrangements, in particular, for maintaining a much closer liason than previously, with all aspects of aeronautical effort in the country. On Tuesday, July 18, eleven members of the Committee made a flight on the Short six-engined flying boat, embarking at Felixstowe. The party was received by Group Capt. Miley, who accompanied it upon the flight and during a subsequent inspection of the establishment. The flying boat was under the command of Flt. Lt. Sawyer. The journey to Felixstowe was made via Martlesham Heath on a de Havilland "Dragon" of Hillman Airways. Members were much interested with the developments that have taken place at Romford, and congratulated Mr. Hillman on the deserved success of his enterprise. The quietness of the "Dragon" was quite remarkable. During the recess all communications for the Committee should be addressed to the Hon. Secretary, Mr. O. E. Simmonds, M.P., at the House of Commons.

Book Reviews

British Standard Glossary of Aeronautical Terms. Revised June, 1933. (The British Standards Institution, 28, Victoria Street, London, S.W.1.) Obtainable from FLIGHT Office. Price 5s. 6d., post free.

Is it correct to describe a "Nimrod" as a "ship plane"? According to *King's Regulations for the Royal Air Force*, it is. According to the *British Standard Glossary of Aeronautical Terms*, there is not any such term. Likewise *King's Regulations* recognises the expression "float plane," whereas the *Standard Glossary* insists upon "float seaplane." When doctors disagree, whom is the layman to believe? One would imagine that the *King's Regulations* were the authority on the King's English, but perhaps technical terms are not to be regarded as King's English. The Air Ministry has been concerned in both publications, for the *Glossary* has been prepared by the Nomenclature Committee of the Aircraft Industry Committee of the British Standards Institution, on which are represented the Air Ministry, the Royal Aeronautical Society, the Royal Aero Club, the Aeronautical Research Committee, the S.B.A.C., and the Patent Office. The *Glossary* has been revised up to June, 1933, whereas the current edition of *King's Regulations* is dated 1928, so presumably the former and more recent publication has the greater authority. But will an officer of the Fleet Air Arm serving on a cruiser with a catapult be liable to Court Martial under *King's Regulations*, page xi, if in official correspondence he calls his "Osprey" or "III F." a "float seaplane"?

The list of definitions in the *Glossary* is certainly the more comprehensive, as it acknowledges the existence, or possibility of existence, of the helicopter and ornithopter, which *King's Regulations* ignores. Also it gives sanction to the horrid words "aerostat" and "aerodyne." The former occurs, if we remember right, in the regulations for the Gordon Bennett balloon race, but we fervently hope that neither term will ever come into common use. All that can be said for "aerodyne" is that, though cacophonous, it is less clumsy than its synonym "heavier-than-air aircraft." It includes kite, glider, aeroplane, gyroplane, helicopter, and ornithopter. The aeroplane is subdivided into "landplane," "seaplane," and "amphibian," and the seaplane is divided again into "float-seaplane" and "flying boat." We rather regret the discarding of the convenient terms "ship plane" and "float plane," but otherwise we think the definitions are good. They should now be observed on all occasions, and we should all have done with the time-honoured but unscientific habit of contrasting "aeroplane" with "seaplane," and "seaplane" with "flying boat." A moment's thought must convince anyone that a flying boat is a seaplane, and that a seaplane is an aeroplane.

When we turn to Section 11, "General Motion of Aircraft," we note that "Evolutions voluntarily performed with an aircraft other than those required for normal flight" are officially described as "acrobatics." The popular "aerobatics" is not any longer recognised.

More technical terms are defined with great care, but they interest a smaller reading public. It is the definitions of general terms which should be studied and followed by the generality of those interested in flying.

Raftales. Told to a Flight Cadet. By Charles B. Baker, illustrated by Ping. (Sir Isaac Pitman & Sons, Ltd.) Obtainable from FLIGHT Office. Price 2s. 3d., post free.

We have read, or begun to read, a great deal of verse about flying, and usually it has left us with a pain in the pinny. What a treat it is to find a book of humorous poems which really are funny! Not only are *Raftales* very witty, but they are full of topical knowledge and allusions. They do not, as so many alleged humorous

poems do, scorn all the laws of scansion. For ingenuity of rhyming they challenge comparison with the *Ingoldsby Legends*. And then, if ever the poet's wit begins to wear a little thin, on that very page there is sure to be an exceptionally good sketch by Ping which revives the fading laughter and swells it from a giggle to a roar. Incidentally the poems deal only with overseas stations of the Royal Air Force, and there are few stations and few squadrons which escape mention. Mr. Baker seems to know just the little points in every R.A.F. mess which always live in the memory, and he also seems to have a personal acquaintance with the local tribes and tribal chiefs—though "We haven't been to India."

We can only give an adequate impression of the book by quotations, and we will start with the title of one poem, "Did it Atcherley Happen?" Of the "faithful Nineack" in Iraq the author writes:—

"It managed the job at El Batn,
The cream of the Mutair got satn.
Those cousins of Ibn's
It tore into ribns—
Not bad for an obsolete patn."

Of the Nile we read:—

"With each little gush in the sulphurous slush,
Comes a sweet little old-fashioned odour;
It floats in the breeze like the song of a cheese,
But is tasteless in whisky and soda."

We wish we could reproduce the drawing of the Padre coming down in a parachute at Abu Sueir, but after all the book only costs 2s., and we can hardly imagine better value for a florin.

"Squadron 95." By Harold Buckley. (The Obelisk Press, Paris. 100fcs.)

Books about air fighting in the war require more than their subject to recommend them to the general public. This book has a few outside recommendations. In the first place, there is a foreword by Ernst Udet, who says: "In hard fights I got to know the reckless, brave boys whose insignia was a kicking mule." In the second place it contains an account by eye-witnesses of the death of Lufbery, though this adds nothing to our knowledge. Thirdly, it corrects the current belief that Quentin Roosevelt (an officer in 95 Pursuit Squadron, and son of the first President Roosevelt) was shot down in flames. He was shot through the head by Sergeant Thom, who met members of No. 95 after the Armistice and said: "He made a brave fight, although I realised from the start of our duel that he was not as experienced as some with whom I had fought and won." Fourthly, an officer of the squadron, Lt. Puryear, was taken prisoner and tried to escape in company with André Conneau, known at the earliest flying meetings at "Beaumont." It is interesting to be introduced familiarly to this famous pilot, of whom the American wrote: "The Frenchman was a true comrade and would always deprive himself in order to share the protection of his coat with me." Finally, the author, who rose to be captain and won the American Distinguished Service Cross, says that the book is primarily intended as a record for the members of the 95th Squadron, so that it hardly matters whether the general public are interested or not.

We can find no other excuse for the book. It is not well written; and, while there is plenty of fighting in it, there is even more about dissipation. Nothing can be more depressing than tales of orgies described in jocular strain by a writer who has no natural gift of wit. And why, in any case, should so many flying men, and in particular American pilots, think it desirable to put their orgies on record?

Landing Fees

ON Wednesday, July 26, Mr. O. E. Simmonds, in the House of Commons, inquired the revenue obtained during the past financial year from landing and housing fees for private aircraft at Government-owned aerodromes, and whether, in view of their contributing in petrol taxes without making use of the highways, a remission of fees could not be granted (a nice point). Sir P. Sassoon,

Under-Secretary of State for Air, replied that during 1932 about £1,500 had been collected through such fees. These fees represented payment towards cost of facilities provided from public funds, and he could see no case for their remission. In reply to a further question concerning whether the heavy cost of collecting such fees was worth their imposition, Sir P. Sassoon referred his Hon. Friend to the Chancellor of the Exchequer.

THE ROYAL AIR FORCE

London Gazette, August 1, 1933

General Duties Branch

Air Vice-Marshal F. W. Bowhill, C.M.G., D.S.O., is appointed a Member of the Air Council as Air Member for Personnel (July 31); 362757 Sergt. C. G. Lott is granted a permanent commn. as a Pilot Officer on probation, with effect from July 10, and with seny. of April 9 (substituted for *Gazette* July 25); P/O. on probation C. S. Byram is confirmed in rank (July 11).

The follg. are promoted with effect from August 1:—Flt.-Lts. to be Sqdn.-Ldrs.: R. L. Crofton, M.B.E., A.F.C.; W. J. Daddo-Langlois, E. H. Richardson, F/O. to be Flt.-Lts.: C. McK. Grierson, W. D. J. Michie, P. D. Cracroft, A.F.C., J. E. M. Bainbridge, J. A. S. Outhwaite, A. F. Britton, M. C. Collins, P. Kinsey, A. G. C. Somerhough, R. G. Forbes, A. E. J. Pratt, P. C. Fair.

Wing-Com. H. W. G. J. Penderel, M.C., A.F.C., is placed on half-pay list, Scale A (July 11); Sqdn.-Ldr. R. M. Trevethan, M.C., is placed on half-pay list, Scale A (July 21); Sqdn.-Ldr. J. H. Green is placed on half-pay list, Scale A, from July 26 to August 21 inclusive; Flt.-Lt. F. Beaumont is placed on half pay list, Scale B, from July 29 to August 20, inclusive; Flt.-Lt. R. F. Part is transferred from half-pay list, Scale B, to half-pay list, Scale A (July 23); Group-Capt. E. M. Murray, D.S.O., M.C., is placed on retired list at his own request (July 31).

Stores Branch

Flt.-Lt. H. E. I. Crocker is promoted to rank of Sqdn.-Ldr. (August 1). The follg. Flying Officers on probation are confirmed in rank (April 19):—W. Macey, G. R. Thwaite.

Medical Branch

Flt.-Lt. R. H. Stanbridge, M.R.C.S., L.R.C.P., D.P.M., is promoted to rank of Squadron Leader (August 19).

ROYAL AIR FORCE RESERVE RESERVE OF AIR FORCE OFFICERS

General Duties Branch

S. C. Elkinton is granted a commn. as Pilot Officer in Class C (July 17); F/O. S. W. White is transferred from Class A to Class C (July 29); F/O. P. K. Devitt resigns his commn. on appointment to a commn. in Auxiliary Air Force (July 13); F/O. F. Horsley relinquishes his commn. on account of ill-health and is permitted to retain his rank (August 2); F/O. J. H. Edge relinquishes his commn. on account of ill-health (August 2).

Special Reserve

The follg. Pilot Officers on probation are confirmed in rank:—W. B. Royce (May 22); A. C. Grant-Dalton (June 14).

AUXILIARY AIR FORCE

General Duties Branch

No. 600 (CITY OF LONDON) (BOMBER) SQUADRON.—P. K. Devitt is granted a commn. as Pilot Officer (July 13).

No. 603 (CITY OF EDINBURGH) (BOMBER) SQUADRON.—Flt.-Lt. A. H. Bruce relinquishes his commn. on completion of service and is permitted to retain his rank (June 9).

Chaplains' Branch

No. 605 (COUNTY OF WARWICK) (BOMBER) SQUADRON.—The Rev. H. N. Forbes, M.A., relinquishes his commn. on completion of service (June 1).

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Wing Commander C. H. Nicholas, D.F.C., A.F.C., to Station H.Q., Hornchurch, 22.7.33, to command, vice Group-Capt. E. R. Manning, D.S.O., M.C. Squadron Leader A. H. Flower, to R.A.F. Record Office, Ruislip, 27.7.33, for administrative duties, vice Sqdn.-Ldr. J. Duminy.

Flight-Lieutenants: G. M. Buxton, to No. 1 School of Tech. Training (Apprentices), Halton, 25.7.33. F. G. Cator, to Station H.Q., Farnborough, 18.7.33. W. C. Cooper, to No. 13 (A.C.) Sqdn., Netheravon, 25.7.33. R. Costa, to No. 1 School of Tech. Training (Apprentices), Halton, 25.7.33. L. Dalton-Morris, to Station H.Q., Biggin Hill, 24.7.33. E. R. C. Hobson, D.F.C., to No. 501 (City of Bristol) (B.) Sqdn., Filton, 23.7.33. W. A. Harvey, to Station H.Q., Upper Heyford, 22.7.33.

Flight Lieutenants: J. C. Cunningham, to No. 3 Armament Training Camp, Sutton Bridge, 24.7.33. S. H. C. Gray, to R.A.F. Depot, Uxbridge, 24.6.33. B. C. Yarde, to Communication Flight, Iraq, 1.6.33.

Flying Officers: T. W. Hodgson, to Station H.Q., Tangmere, 25.7.33. H. D. McGregor, to School of Naval Co-operation, Lee-on-Solent, 24.7.33. C. L. Monckton, to No. 27 (B.) Sqdn., Kohat, India, 22.6.33. G. F. P. O'Farrell, to Anti-Aircraft Co-operation Flight, Biggin Hill, 28.7.33. R. D. Williams, to R.A.F. Base, Calshot, 25.7.33. A. G. Adnams, to Station H.Q.,

Hornchurch, 25.7.33. H. F. Boss-Walker, to R.A.F. Depot, Uxbridge, 28.6.33. E. C. Passmore, to Station H.Q., North Weald, 25.7.33. J. G. W. Weston, to Station H.Q., Upper Heyford, 25.7.33.

Stores Branch

Flight-Lieutenant L. Taylor, to No. 3 Stores Depot, Milton, 25.7.33.

Accountant Branch

Flight-Lieutenant D. F. A. Clarke, to Administrative Wing, Halton, 24.7.33.

Medical Branch

Flying Officer J. S. Carslaw, to R.A.F. Training Base, Leuchars, 31.7.33.

NAVAL APPOINTMENTS

The following appointments have been made by the Admiralty:—
Lieut.-Commr. (Flt.-Lt., R.A.F.).—G. C. Dickens, to *Victory*, for R.A.F. Base, Gosport (August 8) and to *Courageous* (October 15).
Lieuts. (Flt.-Lts., R.A.F.).—A. C. G. Ermen, to *Victory* for R.A.F. Base, Gosport (August 8) and to *Furious* (August 15); and H. A. Traill, to *Victory* for R.A.F. Base, Gosport (August 15).
Lieut. (F/O., R.A.F.).—L. J. S. Ede, to *Winchester* (August 7).

New Aircraft Registrations

SOME of the latest aeroplane registrations are informative. For example, G-ACIX is that of the Comper "Mouse," which, as we told our readers in *FLIGHT* for July 6, is a low-wing, retractable undercarriage, three-seater, which many people are hoping to see shortly. Now that it is registered we hope to be able to publish fuller details before long. The standard wooden "Moth" with a "Gipsy III" engine is proving a popular combination; G-ACIK is a machine of this type now owned by Vickers Aviation, Ltd., G-ACJB is another owned by Mr. J. M. Barbour, of Glasgow, and G-ACII is one of which Mr. H. E. Evans, a member of Hanworth Park, has just taken delivery. We understand that he is shortly leaving for Africa on his third trip. The Avro "Cadet" is another aeroplane which is selling well. The latest registrations included two of the "Club" variety of this machine. One, G-ACIH, has been added to the fleet of Midland & Scottish Air Ferries, at Renfrew, and the other, G-ACIL, has been purchased by Mr. Fairweather, who also comes from Scotland. The work being done by the Portsmouth, Southsea & Isle of Wight Aviation Co., Ltd., on their Ferry to the Island has grown a great deal since they started, so that they have found additions necessary. The latest machine they have bought is a "Fox Moth," G-ACIG. Another machine of the same type, G-ABWB, is being used on the Hull-Grimsby Ferry service. The "Gull" previously owned by Mr. C. S. Napier, a Director of the Cirrus-Hermes Engineering Co., Ltd., has now been bought by Surrey Flying Services, Ltd., for their taxi work; it has a "Hermes IV" engine.

An Austrian Rally

THE Aero Club of Austria is holding an air rally to Gastein, the beautiful health resort in the Austrian Alps, on September 2. The rally is international in character and open to touring aeroplanes of classes C and G. Entries at single fee (50 Austrian schillings) can be made up till 12 noon on August 19, and at double fee up to noon on August 31. Entries to be made to the Oesterreichischer Aero Club, Argentinierstrasse 29, Vienna. The rally leaves the course free to each competitor, but it must be of at least 600 km. and at least three intermediate landings have to be made. Classification is on a basis of regularity of speed, that is to say, the cruising speeds on the separate stages will be compared with the average cruising speed over the whole course, and one penalty point will be given for each km./h. difference in speed. The competitor with the lowest number of penalty points will be the winner. The earliest time starting as permitted is 5 a.m. Central European Time, but otherwise competitors may choose their own starting time. The route is left to the competitors, but the final stage must be from Salzburg to Gastein. To avoid penalty points the arrival in Gastein must take place between 4 p.m. and 6 p.m. C.E.T. Time spent on intermediate landing grounds is not counted as flying time, but it is, of course, essential to get the times of arrival and departure stamped accurately in the log books. On Sunday, September 3, there will be a "social" flight by competitors and others to Salzburg for lunch, and back to Gastein for dinner in the evening. The next day there will be another social flight to Innsbruck via Klagenfurt. At Innsbruck there will be a farewell banquet to competitors.

BRIEFLY

Mr. Hudson Fysh, managing director of Queensland and Northern Territory Aerial Services, Ltd., who is at present on a visit to this country, is going over to the Continent next week to study the aerial systems of both France and Germany. He will later be returning to Australia via America.

Capt. Max Findlay, who for some years has been Chief Instructor at Hanworth Park, has now joined the staff of Brooklands Aviation.

It is often said that England is not an easy country in which to find one's way about when flying, as there is so much detail both on the maps and on the ground. The Frenchmen who recently overshot Croydon and landed near Desford, Leicester, after dark must have spent a lot of time looking at details!

Scarborough's idea of getting flights of aircraft from other clubs to arrive at their meeting in formation is one to be copied.

"Nitrad" process of casehardening is fully described in a booklet issued by Samuel Fox & Co., Ltd., Stockbridge Works, near Sheffield.

Mr. E. E. Soubry, who with Mr. G. Gordon Bell and Mr. R. A. Carder was elected a director at the annual meeting of the Anglo-American Oil Co., Ltd., on August 3, is one of the younger London business men now coming prominently to the front. He joined the company before the war.

On August 4 Bridgeport, Conn., U.S.A., airport was rechristened Mollison airport at a ceremony, which Mr. and Mrs. Mollison attended, in the presence of the acting Governor.

Mr. and Mrs. Mollison's damaged "Dragon" *Seafarer* arrived at Plymouth from New York on August 6 en route for Stag Lane.

Flt.-Lt. W. G. Pudney, for some years instructor to the Berks, Bucks and Oxon Aero Club, at Reading, has joined International Airlines, the company which is starting services in connection with the ships calling at Plymouth, Southampton and Portsmouth.

To celebrate the 20th anniversary of his obtaining his pilot's certificate, Frederick Dismore, the Imperial Airways pilot, flew one of the G.W.R. machines on the Birmingham-Cardiff-Haldon-Plymouth route on August 5. So far he has flown approximately 850,000 miles in 8,500 flying-hours.

Mr. A. V. Harvey, manager of the Far East Aviation Co., Ltd., is at present visiting England.

Those who want a tastefully served meal should try the Surrey Aero Club at Gatwick. We stopped there on our way home from Lympe one Sunday evening and were far better off in consequence than if we had relied on an hotel.

Flt. Lt. C. Clarkson was the pilot who gave a fine exhibition of inverted flying at the Cinque Ports International Air Rally in a "Tiger Moth." Flt. Lt. W. E. P. Johnson brought this machine to Lympe but did not fly in that particular display.

On August 1 the aviation department which Selfridge's have been running in their Oxford Street building was moved to Heston Airport, where it will be under the direction of Brian Lewis & Co., Ltd. Mr. Neale will remain in charge of the department, with Mr. Turnbull as his assistant. The department specialises in the supply of all aviation clothing and accessories, while they also hold the British Agency for Irvin parachutes and Sestrel aircraft instruments.

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Monospar Developments

RECENT deliveries by General Aircraft, Ltd., includes G.ACJF to International Airlines, Ltd., this being the first of three standard Monospars for their Croydon-Portsmouth-Plymouth service. These machines are being fitted as alternative 4/5 seaters. A similar machine, SE-ADS, has been taken over by Mr. Gosta Andree of Stockholm. Mr. Andree will be remembered as the Swedish pilot who flew in 1928 from Stockholm to Cape-town in a Gipsy (80 h.p.) Mark I Moth. His Monospar is fitted with 6½-hour tanks (750 miles). Mr. R. Exton Gardner, of Warlingham (Chairman of Yardley's Scent,



EVEREST CONQUERED AGAIN: A "Skybird" Model of a Hawker Super "Fury" over the Himalayas.

Ltd.), has taken a machine (G.ACIC), which, by special arrangement, will be converted to the retractable type when General Aircraft have completed the exhaustive operational tests they propose to carry out on this type, at home and abroad, before it is marketed. The machine is fitted with 6½-hour wing tanks and has a supplementary cabin tank for special flights. It will be flown by Mr. C. E. Gardner, who is well known at the Air Service Training School at Hamble and who recently ran second in the *Morning Post* Race, and won the Yorkshire Trophy Race. The next delivery scheduled is a machine similarly convertible to retractable at a future date which has been bought by the Italian Air Ministry, to whom the Monospar Company have recently delivered wings specially designed and built for the Caproni 97. In addition, G.ACEW which works on the Inverness-Orkney scheduled service has been delivered to Highland Airways after overhaul in time for the Scottish August traffic.

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PUBLICATIONS RECEIVED

British Standard Glossary of Aeronautical Terms. (Revised, June, 1933.) No. 185—1933. London: The British Standards Institution, 28, Victoria Street, S.W.1. Price 5s., post free 5s. 6d.

The Case Hardening of Special Steels by Nitrogen. Samuel Fox and Co., Ltd., associated with The United Steel Companies, Ltd., Stockbridge Works, near Sheffield.

Report on Economic Conditions in Turkey for the Financial Year 1932-33. Prepared by Col. H. Woods, O.B.E. August, 1933. Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

Manual of Air Force Law. Air Publication 804. 2nd Edition, Jan., 1933. London: H.M. Stationery Office, W.C.2. Price 7s. 6d. net.

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AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motors. (The numbers in brackets are those under which the Specification will be printed and abridged, etc.)

APPLIED FOR IN 1932

Published August 10, 1933

- 15,636. E. DODSON. Means for controlling supercharged i.c. engines for aircraft. (395,494.)
- 16,101. FAIRY AVIATION CO., LTD., and A. G. FORSYTH. Means for driving magneto-electric machines.
- 24,134. DORNIER METALLBAUTEN GES., and C. DORNIER. Girders, beams, spars, etc. (395,533.)
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CRIPPS : BOMFORD.—A marriage has been arranged between CAPTAIN JOHN MARTEN RUSH CRIPPS, late R.A.F., eldest son of the late John Marten Cripps, of Instow, Langton Matravers, Dorset, and DOROTHY EILEEN, second daughter of Captain G. L. Bomford, of Oakley Park, Kells, Co. Meath.

KEITH : DUNKERLEY.—The wedding of WING COMMANDER C. H. KEITH and GWEN, elder daughter of the late Archdeacon W. H. C. Dunkerley and Mrs. Dunkerley, will take place very shortly.

Married.

FURNES : CAVENDISH.—On August 3, 1933, at Princes Row Register Office, VISCOUNT FURNES, of Melton Mowbray, to MRS. ENID CAVENDISH, daughter of Mr. Charles Lindeman, of New South Wales.

JAMES : ALLEN.—On August 3, 1933, in London, EDWARD GEORGE JAMES, late R.A.F., only son of the Hon. Mrs. Arthur Anson, to PHOEBE, youngest daughter of the late Mr. and Mrs. James Allen, of Dorney, Berks.

THORNTON : SHILSON.—On August 5, 1933, at St. Matthews, Westminster, FLYING OFFICER F. OLAF THORNTON, R.A.F.O., A.F.R.Ae.S., son of Mr. Arnold Thornton, B.Sc., and the late Mrs. Bertha Thornton, of Leamington, to VIOLET ANNE, only daughter of Major and Mrs. B. W. Shilson, of Leamington.

Birth.

STRINGER.—On August 4, 1933, to PHYLLIS, wife of FLIGHT LIEUT. G. N. P. STRINGER, D.F.C., R.A.F.O., 78, Main Street, Woodhouse Eaves, Leics. —a son.

Death.

RICE.—On August 2, 1933, at Paignton, as result of motor accident on July 3, SQUADRON LEADER BERNARD CURTIS RICE, M.C., late of Griffin Hotel, Amersham, Bucks.

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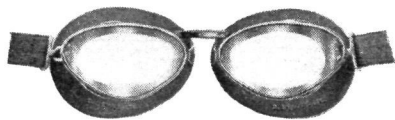
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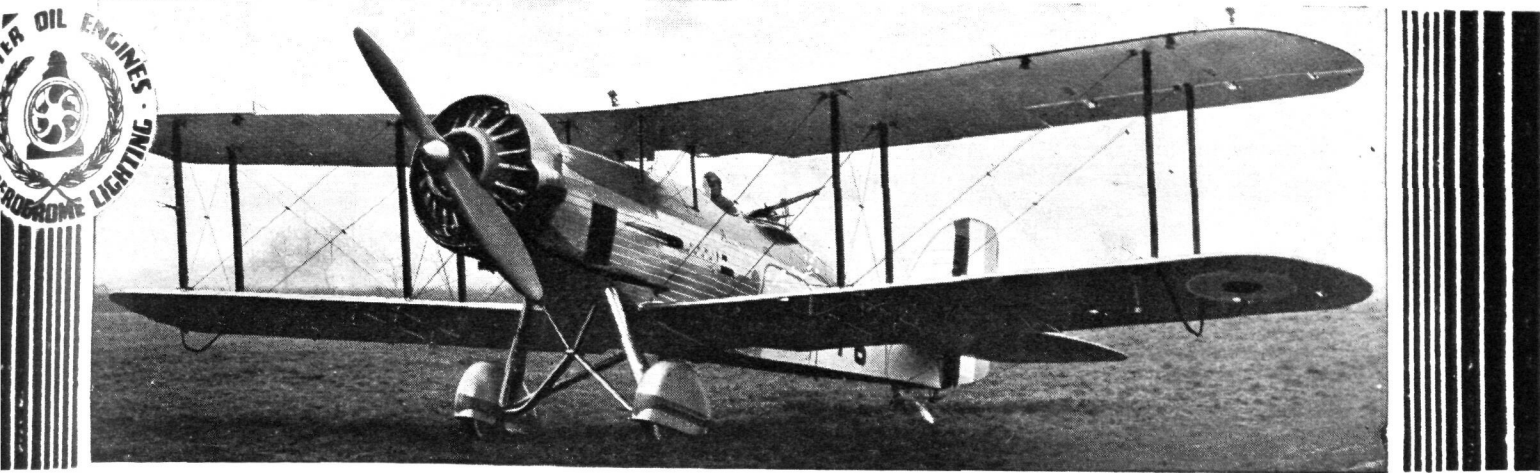
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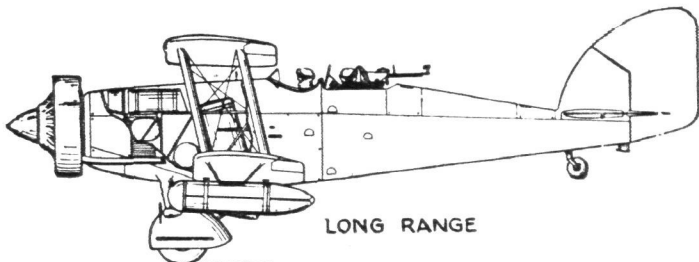


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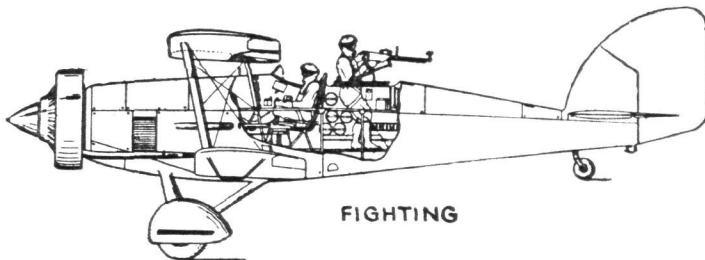
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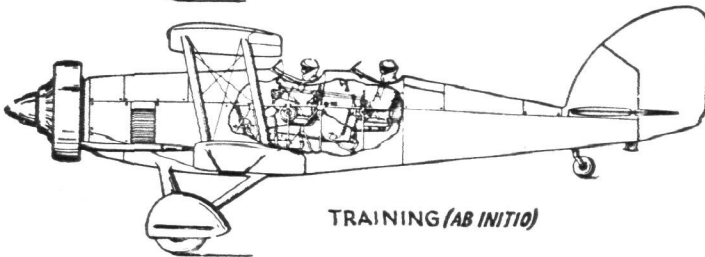
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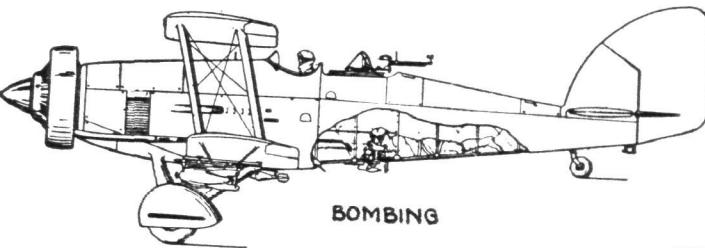
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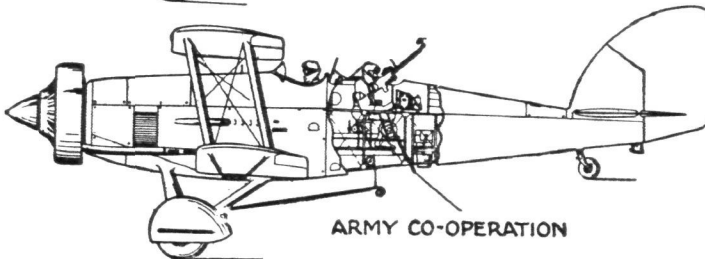
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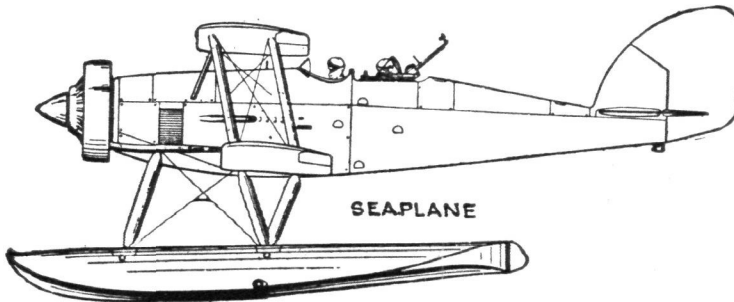
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